The Autumn Exhibitions.

ONCE more September is upon us, and with it the accustomed round of annual fetes of rural industry commence. Some thirteen or fourteen States have announced their days of holding State Fairs; and in all these States there are county and other local fairs, at which the best products of the farm and garden are to be brought forward for comparison and competition. The amount of money and time spent in this country annually on these occasions is enormous; but so far it has been well spent, for they have awakened a spirit of improvement that has conferred vast benefits upon the industry and resources of the country. They are not mere holidays with us, devoted to frivolous amusements, sight-seeing, and dissipation; people go to these exhibitions to learn, and they bring with them the products of their skill and industry to compare with that of their neighbors', for mutual instruction and encouragement. The mere love of novelty can not induce so many thousands of intelligent people to leave their homes and business, and to incur all the toil and expense of attending these fairs. They have a higher purpose in view — they seek information; and in proportion as these shows afford facilities for obtaining this, will they become worthy of public patronage and support.

Hitherto the want of experience on the part of those who have been entrusted with the management of exhibitions has stood greatly in the way of their usefulness, and great dissatisfaction has arisen from people being unable to gain the information which they had just reason to expect. It is poor satisfaction for a man who has traveled hundreds of miles and made great sacrifices of personal comfort, to be jostled about in a crowd, scorched with heat and choked with dust, on the show grounds, and yet not be permitted to see the objects exhibited in such a manner as enables him to understand their merits. No pains should be spared in arranging and classifying all objects, not only in the grounds and on the tables, but in printed catalogues, in such a way as to enable judges to discharge their duties easily and accurately, and spectators instantly to understand the position that each article occupies, and the degree of merit that has been awarded it.

We are glad to see that this matter is receiving attention, but we fear it has not been carried out as far as necessary. We shall confine our remarks chiefly to the department of horticulture. Our State Society, for instance, offers a premium "for the best twenty varieties of good table apples, three of each variety, named and labelled, grown by the exhibitor." Now, suppose that a dozen individuals should compete for this premium; each one should be required to show just twenty varieties — neither more nor less — and the twelve collections should be placed side by side on the tables, so that not only the judges but the spectators might easily make their comparisons. Each one should be designated by a number only until the judges have made their

awards, and then the names of the exhibitors can be displayed as well as the awards. We have served enough on committees to know that some such an arrangement is absolutely necessary to ensure accurate decisions. Heretofore the general practice has been for every exhibitor to display his objects where he chose, and a dozen competitors for such a premium as we have quoted, would exhibit in a dozen different places, and have these twenty varieties of apples mixed up with twenty other varieties and a great collection of other fruits, leaving it for the committees to select varieties as they thought proper, and run about from one table to another to make their comparisons, thus losing their time and scarcely ever arriving at correct conclusions because it was impossible to do so under the circumstances. So we would have it in regard to "the best ten varieties of table apples," "the best seedling apple," "the best twelve varieties of pears," and, in short, every special object, or class of objects, for which a prize is offered. Let them be placed together and each be conspicuously designated, so that judges and spectators may know at once what particular merit the exhibitor claims for his articles. Then, again, amateur and professional cultivators should be assigned separate tables or departments, and not be permitted to mingle their contributions; and each of these departments should be conspicuously designated, that no doubt could be entertained as to what class they belonged to. Then, again, every exhibitor who shows twenty varieties of apples, or ten varietes, or six varieties, or any number of varieties of apples or other fruits, should prepare a list of the same, and then when the judges have decided, they should insert in their reports the names of the varieties to which they awarded the prize and state the principal points of merit, which could be done in a few words. If this were carried out, we should have useful reports instead of mere barren announcements that such a prize was awarded Mr. A., and such another to Mr. B., which amounts to nothing in the end, as far as the great aim and end of the show is concerned.

Another great difficulty is generally experienced in securing the services of faithful and competent judges, who appreciate the importance of the duties assigned them, and are willing to discharge them with care and patience. No fault can be found in general with the selections made by the Society; but it very often happens that of a committee of four or five not more than one or two will make their appearance, and the vacancies must be filled by such as can be found on the grouud. Now, it is a responsible and delicate duty that committees have to perform, requiring careful and patient investigation and sound judgment, and, therefore, the greatest care should be taken in filling vacancies. There are always a number of persons ready to offer their services on committees, and especially on "tasting committees," who regard the duty as being simply to eat up everything that comes before them, if at all eatable. To allow such persons to associate themselves with committees is a manifest outrage upon the exhibitors as well as upon public decency. Every year we are surprized to see how far this thing is carried by persons of whom better might be expected. Committees should understand that they have no right, more than others, to cut up, eat and destroy people's fruits, and when they do so they should be exposed and punished. A mere taste to test the quality is all that is necessary and all that decency would permit. We

think it would be well for every society to define the rights and duties of its committees and have them printed on every schedule of prizes, so that there could be no mistake.

There is another point still to which we must call attention, and it is this: Both committees and exhibitors are generally at fault in not having their arrangements completed in good season. We have seen it happen more than once, that in the horticultural department of our State Fairs all the dishes for the display of fruits had to be procured, and all the fruits arranged, *after* the hour when all should have been submitted to the inspection of the judges. The consequence was that there was nothing but confusion and grumbling on all sides; nothing was right—nobody pleased. Timely and ample arrangements should by all means be made. It is much easier to make them before a crowd of uneasy exhibitors arrive, than afterwards. Abundance of water, dishes of various sizes, vases, pitchers, &c., &c., should all be in the hall in good season and placed in the hands of a person whose duty it would be to give them out as called for. Then officers should be in waiting to assign every exhibitor his position immediately on his arrival, so that he would not be subjected to the trouble and annoyance of inquiring all around where he could place his articles for exhibition. Exhibitors, too, would save themselves much trouble by being early on the ground and having their arrangements completed before visitors are admitted. Judges, too, should have their duties all discharged before a rush of spectators is admitted to interrupt or annoy them.

We feel it to be a very important matter for the country that these great shows be conducted with the strictest regard to order and regularity. The points to which we have called attention briefly, are but a few among the many that should receive attentive consideration, in order that the greatest possible amount of good may be derived from the time and money expended.

STRAWBERRIES, AND THEIR CULTURE.

Within ten years past volumes have been written about strawberries, large numbers of new varieties have been introduced both of native and foreign origin, and multitudes of experiments have been made in order to discover the best method of cultivation. Withal, we must candidly say, that strawberry culture in general is to-day in miserably low condition in this country. See the fruit brought into our markets; the great bulk is small, sour, dirty stuff, that men who value their reputation as cultivators would be ashamed to offer. In private gardens how rare it is to see a really well managed strawberry plot. Why is it? The strawberry is one of the most delicious and healthy of all fruits, universally esteemed a delicacy—a luxury that could scarcely be dispensed with. It commands an amply remunerating price in all our markets; and our climate offers no serious obstacle to its culture in a high state of perfection. Then why is it managed so indifferently? This is a question that we wish cultivators to put to themselves, and to one another, and answer it if they can. We apprehend that the

chief difficulty lies in attempting too much. This, we think, is the prime error of American cultivators in every department, including both the farm and the garden. "A little ground well tilled" is not their maxim; they reverse this as nearly as possible. We do not wish to be understood as recommending people to throw away their time in frivolous attempts to bring a certain object or number of objects to a fancied state of perfection. We are well aware that in this country, where labor is costly and land cheap, there is a strong temptation to cultivate largely and poorly; but every where it pays to cultivate *well*. The men who have grown rich in this country by farming and gardening are not those who have had the most ground; quite the reverse. One man embarks in the culture of the strawberry for market; he plants an acre or two, or more. To prepare so much ground as it should be prepared, would involve a considerable expense; but the land is simply plowed as it would be for corn or potatoes. The plants are set, and from that time until the fruit is ready for market, an occasional scratch with a cultivator or horse-hoe is all the attention they receive. Dry weather sets in just as this fruit begins to ripen and no means have been provided to render watering possible—they must take the weather as it comes. No measures have been taken to keep the fruit clean, either; they are allowed to draggle in the dust, so that three-fourths of the crop has to be taken to the pump and *washed* before they can appear on the huckster's table. Now the cost of picking this crop of small fruit is three or four times what it would be to gather a crop of good well grown fruit, and when gathered and carried to market, they must be sold at half price. Small, dirty, or washed and bruised, what is to be done with them but sell them for what they will bring? Thus an acre or two will not yield to the cultivator as much net profit as so many rods well managed, and the buying community are left to wonder where all the fine strawberries go that they read about.

Coming home for an illustration, a few years ago several persons about this city embarked with considerable spirit in the culture of strawberries for market. Some pains were taken to prepare the ground and get good varieties, and the first two or three years some approaches were made to reasonably good culture. The consequence was our markets were filled with excellent fruit, people paid cheerfully liberal prices, and the growers themselves reaped a rich harvest. The zeal of the new cultivators, however, waxed cool; their plantations became old; they failed to renew them in season, they were abandoned to themselves, and a small crop of miserable fruit was the consequence, yielding not enough to pay for picking and selling.

Such is precisely the course pursued by a majority of the market growers that we are acquainted with, and a large majority of private growers follow suit. A crop or two of fine fruits are produced while the novelty of the thing and the zeal of the beginner lasts, and then all go to ruin. People who embark in strawberry culture must understand that a strawberry plant is different from the apple tree, which when once planted can take care of itself pretty well if in a good soil. The strawberry plant wants continual care—a multitude of little attentions. It must have deep and rich soil to begin with; strawberries should never be planted upon a soil, however good, unless it has been deepened by subsoil plowing, or trenching, at least eighteen inches, and two feet is

better; for the strawberry requires a great quantity of moisture and the roots will seek it to a great distance if the ground be in a good condition to allow them. Besides deep and rich soil, ample provision should be made to water them at the time when the fruit is swelling and dry weather almost sure to prevail. A sprinkling of water is of no use—a good drenching to the very rootlets is required once a week at least. Then, all the time, from the moment the plantation is made, the ground must be kept clean and all surplus runners likely to weaken the bearing plants removed. As the fruit begins to color, some straw, or other material, should be laid on the ground around the plants to keep the berries clean so that they may go to the table as they come from the plant, with their color and flavor unimpaired by such an outlandish process as *washing*. Then, with all this treatment, the beds must be renewed as often as once in three years at least, and in doing this we recommend choosing, when practicable, new ground. We have firm faith in the wisdom of rotation in these matters.

Now there is nothing new in all this, nothing but what good cultivators have known and practiced for half a century, or more for aught we know; but it is sometimes well to call attention even to such old and homely truths. We might cull from the writings of the day on this subject, any number of prescriptions and recipes, but as we have tried few of them, and as in our own practice we have not found them necessary, we must leave it to those who choose to search them out and apply them. In nine cases out of ten, people will succeed better by practicing well what they know than by following doubtful experiments; this remark we intend for the man of cultivation. Of course, we can not but regard with interest all efforts of zealous men to improve upon old methods, and to discover new and valuable fertilizers; what we mean is, that in common practice no novelty should be followed until its merits have been thoroughly canvassed, and well authenticated.

"When is the proper time, or rather the best time, to plant strawberries?" is a question we are often asked. We have no hesitation in recommending the spring—the month of April, or the beginning of May, in the north, as the *surest*. The plants at that season are well-rooted, and there is scarcely the slightest risk of a failure. If the ground has been well prepared, and they are well attended to during the season, a fair crop may be had the following spring. By planting in August or September, a crop may be had a year sooner, but it will necessarily be a light one, and there is a great risk on account of the warm and dry weather so prevalent in these months. To plant at this season with success, the plants must be well rooted, and the ground thoroughly wet with rain or otherwise before planting. To plant in dry earth, and sprinkle after planting, is a mere waste of plants and time. Amateurs who have the plants on their own grounds, should take the strongest runners as soon as rooted and transplant them into a shaded, cool border, and there allow them to remain until well fixed in the ground, when they can be taken up in a moist time with some earth about the roots and transferred to their permanent situation; the greater certainty of this method will amply repay its extra expense. Even when plants are purchased, it will generally be found safer to plant them temporarily in a cool border until re-rooted, and then remove them with earth to the open, permanent beds.

A very common error is to plant too close; sufficient space should be left for the proper cultivation of the soil, and for passages to and from the plants. In gardens, we prefer planting in narrow beds, each containing about three rows, a passage of two and a half feet between each bed, and twelve to fifteen inches each way between the plants. In extensive field-culture these spaces would not be sufficient; three to three and a half feet space between the beds, and eighteen inches between the plants would be little enough.

Now as to kinds. Varieties of strawberries have lately grown so numerous, that it is really embarrassing for the amateur to make a selection; it is the more so, too, on account of the variety of opinion given respecting the qualities of varieties. One says, *Hovey's Seedling* is the best; another, the *Burr's New Pine;* another, *McAvoy's Superior*, or something else. In England, as in this country, varieties have increased to a wonderful extent. *Keen's Seedling*, that at one time was the most popular variety in Great Britain, is now, although highly prized, in a great measure superseded by the *British Queen*, the great strawberry of England. We observe that it took nearly all the prizes at Chiswick on the 9th of July last. *Myatt's Surprize* took one premium, and a new seedling named *Prince Alfred* was described as large and handsome. The *Elton*, *Kitley's Goliah*, *Cuthill's Black Prince*, and *Alice Maude* are all fine English sorts, but *none* of them prove valuable here. Our climate seems in some way or other to prevent the perfect development of the floral organs, as the fruit seldom sets well. We have tried nearly all the English varieties of note, and find them of no value for profitable culture. The *Bicton Pine*, a large white variety, promises to be worthy of a place in amateurs' collections — desirable for its color, especially. We have had it bear two seasons, on a small scale, and it has quite come up to our expectations. *Hovey's Seedling* has for several years been the "*British Queen*" of this country. It is a magnificent fruit, but is uncertain, producing heavy crops in some seasons and localities, and failing totally in others. This has been its history from its first dissemination to the present time. While we would not dispense with it, even in a small collection, there are many others on which we would rather place our dependance for a large crop. *Burr's New Pine* and *Large Early Scarlet* are productive, good sorts. The *Iowa* is an immense bearer (a staminate), but small; *Burr's Columbus* is a great bearer, and a showy, good fruit; *Burr's Ohio Mammoth* is a magnificent fruit, pale colored, like the *New Pine;* but although the fruit show well on the plants, they do not bear picking long. *Black Prince* bears enormous crops with us every year, and the fruit, though generally of indifferent quality, is pretty good when fully ripe; *Walker's Seedling* is a good variety, quite conical, and as dark almost as the *Black Prince*. Our seedlings, *Monroe Scarlet* and *Genesee*, have borne abundant crops.

*McAvoy's Superior** having been awarded the $100 prize at Cincinnati, excited considerable expectation, and now it seems to be very variously estimated. Mr. PARDEE, in our last number, gave the result of his trial. Our specimens were scarcely so fine as his, yet we consider it a prolific, good variety. It has one defect — it does

* See Frontispiece.

not fill up perfectly. It is bright colored, and of good flavor, though not first rate. At Boston, it appears, from *Hovey's Magazine*, that all the Cincinnati varieties have proved inferior. *McAvoy's Superior*, Mr. HOVEY says, "is the best flavored of the four, but far inferior to many of the older varieties." *Longworth's Prolific* is a good bearer, but it is superior in nothing to some of the older sorts. We learn that at Pittsburg the *McAvoy's Superior* has proved almost a failure in every case where it has been tested.

The old vexed question of sexes has been revived latterly, but it is a mere waste of time to discuss such a question. It is very well understood, and has been for fifty years, that no variety wanting in stamens will bear a crop by itself. In Europe, the *Hautbois* have been examples of this kind. Variations and defects in the sexual organs, so-called, are much more frequent in this country, and in the case of some forms a permanent characteristic. Where pistillate sorts are planted, therefore, a small proportion of staminates must accompany them.

WINDOW GARDENING AND PLANT CASES.

FOR several months we have had numerous inquiries respecting "Wardian Cases" waiting an answer. The following article, with illustrations, which we select from *McIntosh's Book of the Garden*, is very complete, embracing a full and satisfactory description of all the most elegant and convenient contrivances for keeping house-plants that are known or in use in England, or on the Continent, where such things have been carried to great perfection. There are thousands of people shut up in cities who can have neither gardens nor green-houses, and yet can not wholly deny themselves the pleasure of cultivating a few plants; and this can not be done in the dry atmosphere of living-rooms in a way to afford much pleasure.

"The necessity for adopting window gardens, Wardian cases, or something equivalent, by those who are fond of having plants in their rooms, will, we think, be strengthened by the following remarks by Professor LINDLEY:

"'What, it may be asked, is there in the air of a sitting-room which plants are thus unable to support? Can any thing be purer than the atmosphere of an English drawing-room? Perhaps not; but it is this purity which in part inflicts the injury. Plants would thrive better if it were otherwise—but it is more especially its dryness. Let any one measure the moisture of a sitting-room and the open air, and he will see how great a difference prevails. We have,' says the learned Professor, 'this moment tested it by SIMMOX'S hygrometer: in the open air this instrument indicates 40°, in a sitting-room 60°. When plants are kept in a dry atmosphere they rapidly lose their water of vegetation; the sides of their pots are robbed at the same time; and it is impossible for plants to suck out of soil thus partially dried the moisture demanded for the sustenance of their exhausted foliage. Such a state of things is inseparable from a sitting-room. To render the latter congenial to plants, it would be uninhabitable by ourselves. The extent to which plants are injured in a common sitting-room is strikingly illustrated by the condition of cut flowers. Let two clusters of fresh-gathered flowers be introduced into a sitting-room: place the one in the mouth of a narrow-necked jar of water, and arrange the other upon such a shallow

pan of water as a deep dish will furnish. It will be found that the latter will be perfectly fresh days after the former have faded. The reason is, that in the narrow-necked jar the flowers have no access to water except through the ends of their shoots, and are surrounded with a very dry air; while, in the flat dish, they are able to absorb abundant water, because a large part of their surface is in contact with it, and are, moreover, surrounded by air incessantly moistened by the vapor which continually rises from the dish.

"'Of this we may be sure, that darkness, dust, heat, want of ventilation, and all the other calamities to which plants in sitting-rooms are subject, are as nothing compared with the inevitable dryness of the air—which, indeed, acts injuriously not merely by exhausting plants of their water of vegetation, but by lowering the temperature of the pots in which they are grown, in consequence of the evaporation constantly taking place there. What makes the evil greater is, that the plants which are purchased for sitting-rooms are invariably brought into high condition by being grown in a damp atmosphere. They are transferred from the hands of skilful gardeners, armed with the most perfectly constructed forcing-houses, into the care of inexperienced amateurs, whose means of maintaining a plant in health are something considerably less than nothing.'

"Under the head of *Window Gardening* we shall include the various little contrivances of our Continental neighbors, who carry the cultivation of plants in rooms, on balconies, and in windows, to a much greater extent than has hitherto been done in this country, more especially in towns and cities, where the enjoyment of green-houses and conservatories is often denied them.

"N. Ward, Esq., an amateur cultivator, who lived many years in the heart of the city of London, carried the cultivation of plants, even rare ones, and those of difficult growth, to an amazing state of perfection, in small portable green-houses of elegant forms, and which have now become almost an indispensable article of furniture in every drawing-room. These are called Wardian cases, and are found to answer the purpose intended most completely, and are, perhaps, upon the whole, much better adapted for the end in view, as they are at the same time far more convenient and elegant, than the window cases so frequently met with on the Continent—the former constituting an elegant article of furniture within the room, while the latter is attached to the outside of the window. They preserve the plants much longer in bloom or in a healthy state than the usual mode of setting them in stands or on tables, and at the same time afford a degree of agreeable enjoyment in their management.

"Mr. Ward has published a very interesting pamphlet on the growth of plants in such cases, which those interested in the matter should peruse. It contains, as Dr. Lindley has justly observed, 'all the information that can be given; but it is in few hands, and everybody does not understand the principles on which his cases are constructed. It is imagined, by uninformed persons, that complete exclusion of air is the entire object which Mr. Ward sought to secure by his contrivance; but we need hardly tell the reader who knows any thing of the atmosphere, that such an effect can not be attained by a Ward's apparatus: the air finds its way into every place not hermetically sealed, and such contrivances as close glazing, puttying and so forth, can not exclude it. What Mr. Ward sought to gain was uniformity of moisture and an exclusion of soot; and these he effectually secured. It is the dryness of the

air that destroys plants in sitting-rooms and great towns, and not impurities in the gaseous constitution of the atmosphere, the importance of which has been singularly overrated. By enclosing plants in tightly-glazed cases, light is admitted, soot is excluded, and any desirable amount of moisture is securable. There are, however, some practical difficulties in the way of growing plants in close moist cases, which amateurs unacquainted with the nature of plants are unable to overcome. Among these difficulties, the principal is the adjustment of the amount of moisture to which a plant is exposed in one of these cases, to the surrounding heat, and to its own nature. Another is the prevention of dew upon the inside of the glass, by which the interior is often entirely hidden. These are practical difficulties that must exercise the ingenuity of cultivators. Upon the former we can give no information, because each species requires a special consideration. As to the deposit of the dew upon the glasses, we may observe, that as this is owing to the inside of the case being colder than the air that surrounds it, the only course to take is, either to warm the internal air by some means, or to open a door in the case for a short time; and as the latter is the most easy, and is quite efficient, it will be the more generally adopted.'

"Plants have been kept in Wardian cases for upwards of twelve months in good health and condition without renewal, and all this while but with one supply of water. 'This to some may appear strange, but the principles of evaporation and condensation sufficiently explain it. The heat of the sun, or even of the room in which the case stands, naturally produces evaporation through the day time, and during night the process of condensation takes place, and the moisture which has been evaporated is returned to the soil. These two principles are in active operation alternately day and night. It ought to be noticed, however, that owing to the growth of the plants, as well as other contingent causes, such as apertures in the framework, the quantity of moisture in time becomes lessened; and when this is the case, a fresh supply will be necessary. As monotony and continuity cease in time to afford gratification, and as it may happen, no doubt, that some of the plants will grow beyond their bounds, fresh removals and replacements will be found necessary.'—*Gard. Jour.* Add to this, much of the pleasure to be derived from plants growing under one's care, and in one's drawing-room, would be lost, were we not allowed to arrange and re-arrange them, according to our taste and fancy.

"M. Victor Paquet, in '*Almanac Horticole*,' speaking of window gardening as followed in Belgium, says: 'The balconies are turned into green-houses, and you may find, on the fifth or sixth floor, a miniature stove, gay with the brightest flowers, and the greenest foliage. In Paris there are many such contrivances, especially two on the fourth floor of a house in the Boulevard de la Madeleine. Here are to be found the rarest plants. Camellias grow in the open ground; Passifloras cling to the columns; the creeping Fig forms a carpet upon the walls,' (*Ficus stipulacea*, we presume,) 'and water plants start up from tiny basins, curiously contrived in the solid brickwork. By turning a screw a stream of limpid water flows down a rock, from whose crevices start up Ferns and Locopodiums, and such things. And what is it that adjoins this little paradise but a bed-room!'

"Enjoyable as such a window garden must be to the lover of flowers, it is, perhaps, upon a scale beyond the reach of more humble admirers of Flora. The Belgian window garden, figured and described by M. Paquet, is within the reach of all, and will be understood by a glance at the annexed elevation, fig. 1, and section, fig. 2. In the latter it will be seen that the sill of the window is extended in breadth beyond the face of the wall of the house by brackets *a*, generally highly carved, as in the sketch; two or more shelves are placed across the window, which, with the sill, are covered with plants in pots. A roof of glass is hinged to the window-frame, at any convenient height; for it should here be remarked that windows on the Continent are, in general, much higher and broader than with us; if, for example, (as shown in the diagram,) the frame extends three parts of the way up, sufficient light is admitted into the room. These sloping roofs fall down upon a stone or wooden front, either solid or filled with glass, as seen in fig. 2, and are opened and shut for ventilation by raising up the bottom part of the roof, and securing it at any point of elevation desired, by the curved handle *b*. The plants are watered and arranged from the room within, as the windows are hung on hinges, in two parts, and do not generally run up and down, as with us.

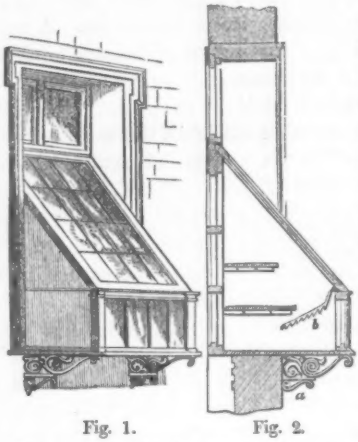


Fig. 1. Fig. 2.

"In cases where the sloping roof extends to the top of the windows, as is sometimes the case, the window being thrown open, the owner can enjoy their fragrance and beauty, while the plants are not subjected to the dust, heat and dry air of the room, and with the large squares of glass used, they lose little of their effect, even when the window is shut altogether.

"Fig. 3 is another example of the same kind of window garden, placed opposite the center window of a drawing-room, and extending considerably beyond the breadth of the window on both sides. It is supported on highly ornamental metallic brackets, and the bottom part, in which the pots are set, or plants planted in, is of stone, slate, cast-iron, or wood — the three first, of course, the most durable — as this part of the case is kept constantly wet. It should rise to the level of the window-sill, but no higher; indeed, a few inches lower would be no disadvantage. — Large panes of glass are used both for the front, ends, and top—one or more of them may be made to open for ventilation; the wall of the house and the casement of the

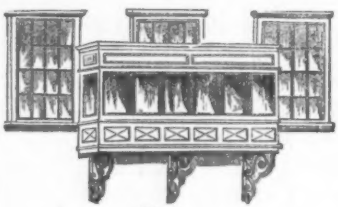


Fig. 3.

window serve for the back. The operation of arranging the plants is, of course, to be performed from the room within by opening the window.

Fig. 4.

"Fig. 4 is the same kind of case adapted to a single window; the ventilation, although shown in front, may be better if placed in the ends.

"Again, where double windows are used, and more especially where the outer window projects beyond the wall of the house, great accommodation is obtained for the keeping of plants. When these window gardens upon the last principle are made to project for two or three feet beyond the wall, as shown in section, fig. 5, the ends should be of glass also, and in them the ventilators should be placed. Windows facing the full sun should, in summer, be provided with an awning, to shade the plants during intense sunshine. This will prolong the season of flowering considerably; while a thicker covering substituted during winter will exclude the cold in ordinary weather; and a tea-urn, or similar vessel, replenished with hot water, or an iron heater dropped into it in the usual manner, will exclude frost of considerable intensity. Sometimes neat green gauze blinds are fastened to the top of the sloping roof inside, and made to run on wires close to the glass, for the purpose of shading; and again, the bottom and shelves are often so contrived, by having wire basketwork round their edges, that the pots are plunged in green moss, which, being kept constantly moist, supplies the plants with moisture, and counteracts the bad effects of a scorching and drying up sun.

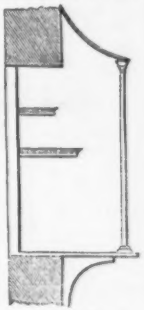


Fig. 5.

"The lady's plant-case, fig. 6, is a miniature adaptation of the Wardian case, and is admirably calculated to form an interesting object either in the drawing-room or hall. The vase, as will be seen, is furnished with a groove all round, into which fits a glass shade, which covers the plants. It may be all in one piece, or framed with elegant and light brass, copper, or even silver sash-bar, and glazed with long, narrow, strips of glass, bent to the proper curvature. Indeed, it may be made to represent a conservatory in miniature.

Fig. 6.

"Large crystal bell glasses are now made for the purpose of covering a whole vase of plants; and we question much but ere long every flower table or stand will be fitted with a glass shade, both when cut flowers are used, and for plants in pots. In both cases the duration of the flowers and plants in a perfect state will be prolonged, and their beauty unimpaired. At all events, their

Fig. 7.

Fig. 8.

use during night must be obvious, more especially in apartments lighted by gas.

"The annexed, figs. 7, 8, represent two very pretty Wardian cases, exhibited at one of the Horticultural Society's fetes at Chiswick. Fig. 7 is seven feet high, four feet two inches wide, and two feet six inches in depth. Fig. 8, four feet high, three feet broad, and one foot eleven inches in depth. The workmanship is in the very best manner of gold-colored metal, the bases being of polished wood lined with metal, and moving on castors; they are glazed with the best sheet glass, and each has a door at the end. Very fitting ornaments, we would say, for any drawing-room.

"When the Wardian case was first brought into notice, an opinion got abroad that they must be constructed so as to be perfectly air-tight, as if plants, more than animals, could exist without that vital element. They are in general fitted pretty close, but by no means air-tight. The principle which governs the health of the plants in them is purely mechanical; the water which is in the soil or medium the plants are set in, is turned into vapor by the heat of the sun or room during the day, and becomes condensed upon the inside of the glass, and is returned again, as soon as the glass becomes so cold as to condense the vapor on its under surface. This process of evaporation and condensation goes on day and night, governed by the temperature of the room the case is placed in; and under these conditions many plants luxuriate in an astonishing degree.

"Fig. 9 represents a Wardian case mounted on a stand, with castors, for the more readily moving it about. The dimensions are as follows. The stand *a* is twenty-two inches in height, fitted with a groove all round for the reception of the base *b*, which is eight and a half inches deep; the glazed top or cover *c* is nineteen and a half inches high, making the whole height of the case four feet two inches. The sides of the box are of mahogany, $1\frac{1}{4}$-inch in thickness, and the bottom of deal, $1\frac{1}{2}$-inch thick, well framed and dovetailed together, and strengthened with brass bands, as seen in

the sketch, and with two cross bars beneath. The upper edge of the box is furnished with a groove for the reception of the glass roof, and this groove is lined with brass, to prevent the wood from rotting. The roof is composed of brass, and glazed with the very best flattened crown glass. The brass astragals are grooved for the reception of the glass, and not rebated, as in ordinary glazing. The length of the case is three and a half feet by two feet in breadth. Eyed studs are cast on the inner side of the ridge astragal, about half an inch in length, for the purpose of suspending small orchids or ferns from the roof. The inside of the box is lined with copper, and at one of the corners an aperture is formed into which a copper tube, two inches long, is inserted, and furnished with a cock for withdrawing any superfluous moisture that may at any time accumulate within the box. One of the panes in the roof is made to draw out, being less firmly set in the groove of the astragals. This provision is necessary for the occasional arrangement of the plants, but the general arrangement is made by lifting the top off entirely. This is, however, seldom necessary, as plants both in pots plunged in moss, and planted out in proper soil, and well drained below, have been kept in a healthy state from four to nine months without removal.

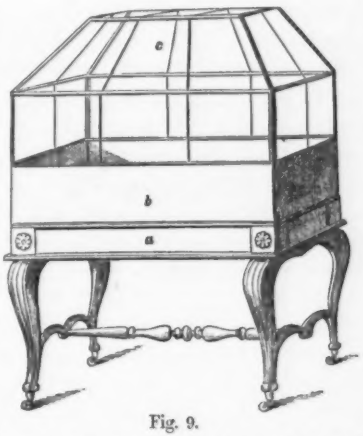


Fig. 9.

"Of Wardian cases, figs. 10 and 11 are elegant examples, calculated for a drawing-room or saloon. In fig. 10 the top lifts off for ventilation, and is fitted closely into a brass groove, to which all the other bars are attached. The under part also fits into a groove in the raised part of the table, and has entirely to be lifted off when the plants are introduced or arranged. The whole is made of brass highly polished, and plate-glass bent to the necessary curves in making. Fig. 11 lifts off in one piece, and is formed of polished brass, as in the last example."

Fig. 10.

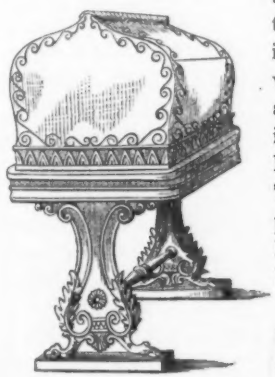


Fig. 11.

We shall conclude this excellent article in our next number. The winter, when all is dreary without, is the season when plants in parlors are most needed. We think we could give nothing more seasonable.

NATIVE AND FOREIGN FRUITS.

BY S. L. GOODALL, SACO, ME.

It has been so often said that native varieties of fruit are necessarily better adapted to the locality where they grew, because, thus growing, they acquire characteristics peculiarly fitting them to such place, that the idea has almost passed into an axiom and is assented to by perhaps a large majority of cultivators, and any attempt to advance an opinion at variance with it may appear simply ridiculous. Yet, as everybody in this happy country is at liberty to be just as ridiculous, or just as heretical as he pleases, you will doubtless give me leave to say that one individual does not assent to it.

I am reminded of the subject at this time by the following passage in an article "On raising fruits from seed," in the August number of the *Horticulturist:* "A variety springing up from the seed, in any given locality, is, in the course of its production, endowed with a constitution and habits adapted to that locality, in a particular manner," &c. Now, if I understand the writer, he means to assert that sometime between the germination of the seed and the production of fruit, the plant is endowed with its constitution and habits, and that these vary according to locality. If he does not mean this I take no exception to it; but if he does—and what other construction can be fairly put on the words "springing up from the seed,"—I join issue with him and advance the opinion that it does not teach the facts in the case, but that, contrariwise, the habits and constitution are decided or bestowed *during the growth of the seed* from which the plant is destined to spring, and that when this seed is once matured it contains wrapped up within it that which stamps indelibly the character of the tree and fruit to grow from it, and that the accident of locality, soil, climate, or other, affects only the *development* of that character and not the character itself.

It is no part of my attempt to explain the laws which govern the production of varieties, for I believe that those who have bestowed most research into them have the livliest sense of the profundity of their ignorance. All I maintain is, that whatever they may be, their operation is at an end before the germination of the seed. We hear no such notions advanced as to the necessary superiority of native varieties by practical gardeners, in respect to vegetables. They take the utmost pains to procure seed possessing the requisite qualities; but having planted it, do they attempt to change these qualities? Not at all. They labor diligently, and only to secure the most favorable conditions for their development, leaving the production of new and varied properties to successive generations, from seed, and anticipate such changes only in the seed.

We might ask what is a native? The child of European emigrants, born the day after arrival here, may be, technically, a native; but is it the less of foreign origin? The Swedish turnip has been grown here many years, and yet is commonly denominated a foreign variety. The *Petre* pear grew from a seed matured in England, and because that seed was brought across the water and planted in Pennsylvania it is called

a native fruit, and so entitled to consideration as possessing the supposed excellencies of a native sort. Do such frivolous distinctions make any difference? Does anybody suppose that scions of the *Petre* pear sent to England would produce a fruit varying from what would have grown had the seed been originally planted there?—provided, of course, that the conditions of development in each case are equally favorable to the *health*, simply, of the tree. Or, that if the seed which produced the *Dix* pear had been sown in Belgium, and not in Boston, and trees or scions thence brought to Boston, would the tree have proved less adapted to cultivation in Massachusetts, or the fruit worse?

If the current opinion be correct, we ought always to find fruits better where they originate than elsewhere. Is it so? Can no one recollect instances of fruit, which originated in the Eastern States, being returned from the west so changed for the better as to escape recognition by the most critical judges until scions again set here, and afforded their former facilities for development, produced a well known and easily recognized acquaintance of former years? The *Rostiezer* is understood to be a seedling of Germany, where it yielded a second or third rate fruit; but trees or scions brought here, produce a fruit so much superior, as to be almost, if not quite, a standard of excellence in its season, and the tree proves as hardy as any native of Maine—and surely we ought to know something about hardiness where the mercury sometimes (rarely, to be sure,) freezes in the thermometer.

Suppose you plant a pear seed at Rochester and it yields a desirable fruit, and you send me scions, which upon trial here prove unable to withstand the severity of winter, what does it prove? If it proves anything, only this—that if the tree had been grown here, it would not have survived to bear fruit, for seedlings are more tender in infancy than at adult age. You send scions to other distant places, and in one it is found of better flavor and in another worse; in one more productive, and in another less. And this only shows that had the tree grown in either of these localities it would have been deemed more or less valuable.

Experience teaches that some fruits are adapted to a wide range of soil and climate, and others restricted to narrow limits. What could there have possibly been in the accidents connected with the growth of the seedling *Newtown Pippin*, which deprived it of the capability of developing its excellence away from the neighborhood of the Hudson? or what endowed the seedling *Green Gage* with the power to exhibit its worth through scores of degrees of longitude, and nobody knows how many of latitude. Nothing at all. The endowment lies further back—viz., in the seed. The proposition here combatted seems to me to have been *assumed* from the first, rather than proved, and so plausible as to have escaped examination, thus leading many astray.

Was not even Downing somewhat wide of the mark when he penned the following sentence—"That in proportion as a variety has been brought originally from a locality in Europe most nearly similar to that where we would grow it, are its vigor and productiveness retained in our own soil." Now, take the *Flemish Beauty*, which is named as perhaps the best proved of any foreign variety in this locality, as perfectly hardy, (more so than the *Fulton*, which is credited to Maine, though the seed grew in Mass-

achusetts, or than the *McLaughlin*, of which, by the way, nobody can tell the origin, the oldest known trees here being grafted,) perfectly healthy, abundantly productive, vigorous in growth, and the fruit fairer than as grown in Massachusetts and New York, and tell me what are the particular items of similarity between Belgium and Maine which caused this fruit to retain its vigor and productiveness here?

Let me not be understood, by any means, as undervaluing native fruits. Nobody thinks more highly of them, or would more strongly urge their production by every cultivator; only I do not believe in such a rapid manufacture of a *native* that one generation, or two, or five will develop the highest degree of excellence. There is doubtless a nucleus of truth to which this, that I maintain to be error, has attached itself. Rare is it for any error to obtain extensively which has not truth enough to hold on by.

The same paper, by DOWNING, from which the above quotation is taken, has the following, which may indicate what it is: "There appears to be something in our new soil, and distinct climate, which imparts new vital powers and gives a new type to the offspring of an old stock in the vegetable races of the other continent." Perhaps a different formula may approximate towards an indication of it, to wit: That there is in the productions of nature *a tendency* implanted by the benificent Creator *to change* it into a type specially adapted to the peculiarities of each locality, and this by successive generations from the seed. We see such a tendency with unusual clearness in the case of maize or Indian corn. Plant seed, adapted to one locality, in another at a distance, and year by year we gradually find it varying, until at length it reaches the type best adapted to its new situation. Something analagous to this may prevail among fruits; but whether just so or not, go on to plant seeds and continue to plant, and when you obtain a desirable acquisition, (your judgment being, perhaps, unconsciously warped by parental fondness,) don't spend the remainder of your energy in extolling its wonderful merits as a native, but rejoicing in the accomplishment of one step, go on in the right direction to cross-breed it with others of known merit, and so effect another advance in what may prove a long race before the highest attainable point of excellence is reached.

STRAWBERRIES AT THE SOUTH.

BY WM. W. WHITE, ATHENS, GA.

I RESUME my notes upon fruits with the strawberry—a fruit capable of being brought to great perfection in this climate. To make the most of a strawberry bed, it requires a suitable situation and soil, clean and deep culture, vegetable manures, regular watering in dry weather, and mulching the roots. The varieties we will consider hereafter.

As to situation select the lowest part of the garden. A sandy piece of bottom land near some stream where the soil is deep, moist and cool, is particularly suitable for this plant. No trees should be permitted to over-shadow and drink up the moisture

of the soil. Fresh cleared lands are best and most easily kept free from weeds. Dig the ground two spades deep, the better to enable the plants to withstand drouth. A soil rich in nitrogenous matter is not desirable. Decayed vegetable substances are the best applications in order to produce fruit, animal manures increasing the growth of vine and leaf without much increase of fruit. A thick coat of swamp muck or leaf mold decomposed by the action of leached or unleached ashes, and well incorporated with the soil, is decidedly the best application in order to ensure a crop.

When the soil is prepared and levelled, make your rows two feet apart. Set the plants fifteen or eighteen inches apart in the row. Select stout healthy runners, rejecting old roots, and plant first three rows of pistillates, then a row of some good hermophrodite variety, then six rows of pistillates, then another of hermaphrodites, and so on until the ground is planted. Choose damp weather for the operation. They may be planted, however, at any time in freshly dug soil in the following manner:—Make holes at the proper distances in the rows; lay the plants carefully therein, spreading out the roots just as they grew; pour on them a half pint or so of water from the spout of a watering-pot, working the earth in about the roots, and finishing by covering them fully with the moistened soil, and over this place some of the dry earth pressing it firmly about the plants. Choose the evening for planting, and keep the roots from exposure to the sun until replanted. Remove the larger leaves to diminish evaporation. Cover the earth between the plants, but not the plants themselves, with a mulching of straw, decayed leaves, or old tanners' bark. They may be transplanted at any time, but the last of September will give them time to establish themselves, so as to produce well the ensuing season. Newly planted beds are more easily kept in a bearing state through the entire season. As soon as the blossoms begin to appear the ensuing spring the great necessity is water, which should be given liberally, both to swell the fruit and to force the plant to throw up new fruit stems. If three days pass without a shower, sprinkle the foliage every evening. Mr. PEABODY is thus able to produce abundant crops from March until frost. Keep the ground always free from weeds and clip off the runners before they emit roots, until late in the season, when they may be allowed to root in order to form new beds and also new stools for the next year's crop. Every winter the plants should be thinned to their original distance, selecting new stools. Dig the bed deeply between the plants and mulch as before. If the crowns of the plants are covered they will generally die out. Do not allow the hermaphrodite plants to overrun and crowd out the more productive pistillate varieties.

For a spring crop, the system of culture by alternate strips is the most convenient. Indeed, when peaches and other fruits become abundant, one at last grows weary of even strawberries. To condense the whole subject of strawberry culture into a few words, *plenty of water and keeping the plants at suitable distances, in well cultivated and mulched soil*, will extend the strawberry season almost indefinitely.

The following varieties have been cultivated in our gardens, some of them, however, but for a single season, and among the varieties lately obtained, there have been none which have given us much encouragement to increase the list beyond the first four:

1. *Large Early Scarlet*—the most valuable hermaphrodite variety. Its points of excellence are, bearing uniformly a good crop planted by itself; great hardiness in resisting drouth, producing fruit of fair size and flavor when other varieties entirely cease bearing without artificial watering. I could not help observing this the present dry season. It is equally hardy in resisting cold. Another good quality is, its distinctness of foliage, enabling the cultivator to leave a due proportion in his beds of perfect flowered and pistillate varieties. Properly cultivated, it is of good size and flavor, and being perfect flowered, if but one variety were cultivated this would be the most desirable. It can be kept in bearing through the season.

2. *Hovey's Seedling.*—If we consider size, flavor, hardiness, firmness of the berry for market purposes, productiveness, ease of gathering, and its habit of long continued bearing when properly cultivated; in connection with its excellent flavor, it is doubtful whether this strawberry will be soon excelled. It is nearly as hardy as the foregoing, but requires more water to make it swell its fruit. As it is pistillate, it needs a fertilizer. It is generally picked for sale before it is ripe, and it is then too acid; but when properly matured, it is excelled by few. For market purposes, the foregoing two varieties are quite sufficient.

3. *Bishop's Orange.*—Why does no one speak a word in favor of this fine old variety? Mr. THOMAS says: "worthless, except in a deep, rich, sandy soil." Mine are on a clay, and they bear profusely for two or three weeks. They are earlier than *Hovey's*, and in quality better than either of the foregoing; and whatever kinds may be raised for market, it is a most desirable variety for home use. While it lasted we preferred it to all other kinds except *Burr's New Pine.* It is a very hardy and desirable variety.

4. *Burr's New Pine.*—I have cultivated it two years. It has proved to be of the most sweet and delicious flavor, and new beds well watered show fruit most of the season. But it has not produced with me hitherto a full crop, and newly planted beds are easily killed during the winter and are quite as susceptible to injury from the sun in summer, where they are planted in the spring. If as hardy and productive as the foregoing, it would be the most desirable of strawberries. I liked it better last season than I do now. One can hardly form a judgment this year on account of the drouth.

Of those introduced here, the foregoing are the only ones worthy of cultivation.—We have found no other sorts equal to the common wild fruit of our pine woods and old fields. The following have been tried:

5. *Cincinnati Hudson.*—This variety here is only moderately productive, yielding less than either the three first of the list, and is too acid for most tastes. Inferior in quality and productiveness.

6. *Boston Pine.*—Not prolific in fruit and making few runners during our dry summers. It sometimes bears a few fruit the last of October, in wet seasons, but at no time produces much of a crop. Rejected on this account by our cultivators.

7. *Black Prince.*—So far seems unworthy of culture. It is by no means equal to *Burr's New Pine* in flavor, and in bearing produces about an equal crop with *Boston*

Pine, and like that variety, does not throw out many runners, but in foliage and fruit is entirely different.

8. *British Queen.*—Not productive enough to be of any service. Hardly bears enough to test its quality.

9. *Burr's Rival Hudson*—though a hardy and tolerably productive sort, is not worthy of culture when the first three varieties of this list can be obtained.

10 and 11. *The English White*, and *Red Wood*—I cultivate for the singularity of their fruit and foliage. The fruit is agreeable, but not very abundant. The *Red Wood* was the first strawberry to ripen the present year, which was perhaps owing to its position.

12, 13, 14 and 15. *Buist's Early*, *Methven*, *Victoria*, and *Prolific Hautbois*—were in our garden and some few plants still remain, but no one has thought it worth while to preserve them when other and more desirable varieties are so readily obtained. They have not proved productive with us.

DESTRUCTION OF INSECTS.

BY CHAS. ROBINSON, NEW HAVEN, CT.

WHO can estimate the vast extent of insect life, especially in cities? None but the careful cultivator, who takes an honest pride in the health and, of course, the cleanliness of his plants, can at all conceive of the amount and infinite variety of the depredators, to whose attacks they are daily and hourly liable. There is scarce a plant which has less than six or eight special enemies, while of the coccus, worms of numberless variety, and caterpillars of all shapes, colors, and sizes—a whole army is continually striving to destroy our labors and our hopes.

Whence this worse than Egyptian plague, and whence their origin? Their present condition is but one aspect—one phase of their existence; for their propagation and diffusion Nature has provided a seperate and distinct life; they are metamorphosed into a new and higher state of being. Moths, millers, and flies, destructive though they may be, are but the representatives and propagators of enemies still more rapacious. Each moth, each miller, and each fly, as a general fact, is the precursor and parent of maggots, worms, and caterpillars innumerable.

What reliance then can be placed upon the efforts of the few birds found in a city for the destruction of these legions?

For many years I have made it a point to destroy forthwith, upon their first appearance, all insects which dared to manifest themselves in my garden. This has caused me no small labor; and the most discouraging feature of the whole is, that during the season of vegetation the work is never done. Some new phase of the annoyance is constantly occurring—some new and more destructive enemy requires constant extermination. I have also provided nests for our various birds, and have fed them until my garden has become the home of the blue bird, the robin, wren, humming bird, oriole, yellow bird, the warbler, and various others of our sweet songsters.

The success of my conflicts with the flies in my house has been more encouraging. By destroying all which first arrived I have been able to keep them, not entirely extinct it is true, but yet somewhat like angels' visits. Since the experiments I am about to detail scarce a fly can be found in my house.

This season I determined not only to destroy all creeping things which should infest my plants and flowers, but also to carry the war of extermination directly into the homes and families of my adversaries. For this purpose I procured twenty-four wide mouthed bottles. They hold nearly a quart each—are hung perpendicularly on the fence around my garden, and are about three-fourths filled with two parts of molasses and one of vinegar. Each evening they are all emptied into a wire seive (the liquor unconsumed being preserved for further use) and then refilled. All this takes time, as any operation must which has to be repeated twenty-four times; but it is all accomplished by one person, and the flies measured and buried in about twenty minutes—less time than would be required in finger-picking the offspring of any dozen of the millers destroyed.

One fact in reference to this matter is deserving especial notice. If the bottles are emptied and refilled *at evening* a large number of millers of all sizes and kinds will be caught. One morning I counted over fifty caught the previous night, some of them very large, in one bottle. That number as an average, and for aught I know a fair one, would give an aggregate of twelve hundred caught in a single night.

The result thus far has exceeded my expectations. The largest quantity caught in any one day was eight and a half quarts. The average for the last seven days is six quarts—that is, I have actually caught during the last week forty-two solid quarts of millers, beetles, and flies. This result has been attained in my small garden, where constant and thorough measures have been persevered in for years to destroy all insects. How much more might be accomplished in localities where they have been permitted to increase to their full capacity.

Can any one calculate the vast array of depredators, which would have been propagated from these more than five pecks of moths, millers, beetles, and flies. We have in New Haven three thousand and seven hundred dwelling houses with yards and gardens attached, beside our three hundred and sixty stores and one hundred and eighty manufactories. Six quarts from each of these houses would give a daily aggregate of over six hundred and ninety-three bushels, or four thousand eight hundred and fifty-six bushels of solid beetles, millers, and flies, caught in one week.

How much of annoyance and misery to men and animals, and injury to plants and fruit might thus be prevented, and how comparatively slight the labor. Probably more time and labor is now actually expended in this locality in the destruction of the offspring than would in this way be necessary to exterminate the race.

Sometime since you remarked, in answer to a correspondent, that manure buried eight inches deep in the soil was of no value.* That must depend upon the nature and condition of the soil. Where it is light and friable and well worked, the roots, accord-

* We do not remember having made such a statement, and certainly should not wish to be so understood, for we know very well that manure buried eighteen inches instead of eight would be valuable under certain circumstances.

ing to my observation, pervade the whole soil, however deep. In burying the flies I have caught recently among my corn, planted June 7th, I find the ground already full of roots to the depth of over a foot. True my soil is of unusual depth, as I have it carefully dug and thoroughly worked from two feet to thirty inches deep throughout. I find that the roots of my vegetables and plants avail themselves of its whole depth before they arrive at maturity.

[We are glad to see observing men in all parts of the country turning their attention to a study of the habits of insects, and the best methods of repelling their attacks upon vegetation. It is a fact that every year we are called upon to note the arrival of some new enemy to the products of our orchards and gardens, and the cultivator who fails to make himself acquainted with them, and the most successful modes of resisting and destroying them, will find himself as utterly helpless as would a mariner in the trackless ocean without a compass.

We thank Mr. ROBINSON for the account he has given us of his labors. We have seen the same mode of trapping successfully pursued by others, and are satisfied that every individual might do much in their way to relieve their premises from such annoying pests. In this connection we cannot urge too strongly the necessity of the prompt and complete destruction of every fallen fruit. Not a single specimen should be left on the ground over night. Children can do this work as well as men, and it will aid very materially, as we know by experience, in diminishing the number of insect depredators.—ED.]

PROPAGATION AND CULTURE OF TREES—THE WAY I DO.

BY E. NICHOLS, WOLF-PEN SPRING, NEAR WALHONDING, OHIO.

I HAVE derived great pleasure and profit from the perusal of the writings of those engaged, as I am, in growing fruit trees, whether for sale or in the orchard. Nor has anything that I have seen appeared more practical and useful than your *Fruit Garden*. Still there are many things which I do not do just as I understand others to do in similar cases, and I have supposed it might afford at least some amusement, for me to state briefly the leading points in which my practice differs from that of most or all others. Of course no one will adopt these *strange notions* unless upon the conviction of his own judgment, and I must candidly admit that they have not had those *years* of trial which the cautious cultivator can rely on. They were not practiced by my great grandfather, my grandfather, nor even my own progenitor. I can only say they seem to do well with me.

I grow no trees in my nursery for sale. I plant them all. I have no confidence in what is called *the whole root seedling stock* theory. All thrifty growing trees I prefer, decidedly, upon their own roots. This, in the apple, I accomplish principally by common root grafting and setting the trees well in the ground, by which the grafts gener-

ally take root. An observation of thousands of trees has satisfied me that those trees growing on their own roots are longer-lived than those grafted standard high, and longer-lived and more thrifty than most seedlings. One seedling out of four may be found very vigorous and healthy.

Pears I grow chiefly on healthy sprouts that are easily transplanted, bud freely, and layer readily. In these, at the usual season, I insert from one to a dozen buds, according to the size and vigor of the stalk. These buds are inserted on the same side, one above the other, about five inches apart. At the proper season the stock is trimmed of all limbs and buds but those inserted, and topped, and then weakened by a cut at the ground on the same side the buds are set, and is brought over rather more than half to the ground. Here it remains until the shoots are from three to six inches long. Then a trench is dug three inches deep, and the stock is lipped just below each bud and then brought into the little ditch and fastened there as a layer. If the weather is hot, a little fine leafy brush is put around them. After a few days, when the trees have become accustomed to their new position, I draw in a little fine dirt which I continue from time to time until they are well rooted. This gives the tree its choice between its own root and the root of the stock on which it is budded. Nine out of ten will show a preference in the end for their own roots, though a free-growing stock will generally root first. I will make no argument in favor of this mode of growing trees. I am aware many learned professors call all such worthless trash. I may only say I have seen some of the oldest worn out varieties, of great age, growing on their own roots, with the seeming health and vigor of youth, and that I am quite willing to risk the planting of considerable numbers of them.

When I have once got a good stock of a variety, I can of course dispense with my sprout stocks and grow them directly as layers. Most kinds root without great trouble and grow well. I will only add that I prefer all healthy, vigorous trees on their own roots. I know no tree which I should deem profitable to set out in an orchard which I would not prefer on its own roots. Even the *Early Harvest* and *Sweet Bough* prosper well with me on their own roots. But most of my pear trees of this class are yet small.

In trimming trees in the nursery, and when set out, my later practice is quite *odd*. It is very offensive to the great majority of opinions. I endeavor to grow no nice, pretty, clean, smooth stems, six or seven feet high, that would make a good ramrod. Some, indeed, I run up pretty well, but I rub no buds off, and only pinch the shoots when they have three or four leaves, so that each stock becomes a mass of verdure. As I have practiced this mode only a few years, I can only say it seems to me to promise well. I have not practiced it to an extent which would enable me to give any opinion based on observation, but it is my confident conviction that there can be nothing better to start standard pears on than the quince stock. We know they start vigorously, and also that, if the pear stock is set well under the ground when it is transplanted, it will root freely. Why should not such make the very best standard orchard trees? I have no doubt they will.

It seems to me that in this way we might secure early maturity in bearing, and in

the end the largest and longest-lived trees. Indeed, there seems reason to hope they might be even more likely to live than in any other way. A moderate and sound growth is indispensable in the young pear tree to its health and vigor at mature age. This is secured by first working on the quince; and it is certain that whenever the quince fails to give the pear stock the requisite nourishment, it will root if it is favorably situated. It is as natural as for a man to eat when he is hungry if food is at hand. What say you, Mr. Editor, to starting standard orchard pear trees on the quince?

In another essay, if it is your wish, I will speak of my *oddities* in planting and managing the orchard.

A FARMER I ONCE KNEW.

BY T. M. COOLEY, TOLEDO, OHIO.

I HAVE known in my life a good many farmers of enlarged means, whose sons, after receiving what is commonly called a *liberal* education, invariably deserted the farm and betook themselves to some other occupation, where they were furnished with constant exercise for the mental faculties. It was not always — not often, perhaps — ambitious views, or even the expectation of larger gains that induced them to desert the farm, but *what* it was may, perhaps, be best illustrated by drawing a picture of another farmer I once knew.

This man lived upon a small farm in the State of New York, by the industrious working of which he managed not only to earn a support, but also to lay aside a little as well for an unfortunate day, as to supply his family with intellectual enjoyment. His two sons had received some benefit from schools, but as a collegiate education was expensive, the father resolved to do what he could towards educating them in another mode. As his desire was that they should follow the same occupation with himself, it struck him as of primary importance that he should first interest them in that employment, and then fit them for it. Though it might be very well for them to spend years in acquiring a knowledge of the dead languages, he thought it still more important that they should become intimately acquainted with the various soils, and with the conditions necessary to the healthy growth of trees and crops; and as life is limited, and knowledge infinite, he thought it good policy that they should first devote their time to that which was of greatest practical value.

It would have done you good to witness the interest which his two boys took in the various phenomena of nature to which he directed their attention. No professional student was ever so much delighted with his books, and for the sufficient reason that no other volume ever presented such intellectual feasts as the great book of Nature unfolds. The unchangable laws of animal and vegetable life upon which every operation in agriculture is based, were daily exhibiting to them new and beautiful illustrations; and whether it was seed-time or harvest, summer or winter, any labor to which their time was devoted, had for them its peculiar interest.

To their surprise they found many things in an occupation six thousand years old, which were still the subject of experiment. The best time for planting trees, the soil, and conditions of soil suited to the different varieties, the best season for cutting timber with its durability in view, the best mode of preserving timber in the ground or out, and a thousand like things appeared still to be subjects of dispute, and though of prime importance, to be receiving little or no attention among their neighbors. The habits of the various insect enemies that destroyed their fruits and ravaged their fields, seemed little understood, and, in fact, these young men were frequently astonished at meeting with owners of large orchards who, though they could see their apples, peaches, and plums being daily destroyed by insects, were utterly unable to tell whether one or forty different species were the cause, and had never given a moment's attention to the habits of those insects, and to means for their destruction. Even the various birds that filled the neighboring woods with their music seemed little known, and some among the most useful of them all, who divided their time between singing and the destruction of noxious insects, were subjects of baseless and ridiculous suspicions in the neighborhood, and were slaughtered without mercy on charges the falsity of which might, with a little investigation, have been demonstrated.

The study of these and of kindred subjects made their labors a constant recreation to them. The daily care of the farm was no longer a task to be performed with machine-like stolidity, while the mind was constantly wandering to other avocations, and indulging in longings for something of a more engrossing nature. The care of trees, of crops, and of domestic animals was a perpetual study, full of interest, and lacking the dullness that pervades the task of the "professional" student, because every day's growth was presenting to their view new phases for contemplation and thought. For the application of the sciences, of the rudiments of which they had made themselves masters, they had frequent occasion, and as their minds expanded with the multiform nature of their practical studies, a taste of general literature crept in to add to the pleasures of their home.

And thus these daily laborers became more thoroughly educated than they would have been by spending years at our higher institutions for public instruction. As that education was of a sound and practical nature, it made them respected everywhere, and their sentiments and opinions won attention in whatever circle they chanced to be. They never had occasion to blush for a want of information on subjects with which men in their calling should be familiar, and they never desired to change their occupation, because they could imagine no other so pleasant as that which made them familiar with the green fields and the graceful trees. I indeed believe that either of them took more pleasure in planting some choice tree, and seeing it grow, and blossom, and bear fruit, than they would have taken in all the various "entertainments" which offer their attractions to the public in large cities.

I can not say that these young men were ambitious; yet, in this calling, they won for themselves credit, and accomplished more good than they would have been likely to at the bar or elsewhere. They were the means, in a great measure, of reforming the system of farming in their vicinity, and of imparting such information as added

greatly to the productiveness of agricultural labor. They rooted out many old worthless fruits, and introduced in their stead such valuable varieties as their neighbors had never dreamed of before. They beautified their own home with trees, and flowers, and tasteful arrangement, and by so doing became the occasion of beautifying the homes of farmers all around them. By acquainting themselves with the habits of destructive insects, and devising means to prevent their ravages, by originating new and valuable fruits, and by improvements in agricultural implements, they became public benefactors in a wider sphere, and had the satisfaction of seeing the whole country in some degree the better for their labors. Though they never became rich, they were the masters of a competence, and their hospitable home and intelligent conversation attracted the most intellectual society for a large region about them. And although such a thing as an agricultural publication had rarely been heard of in their vicinity when they were boys, scarcely a family is now without one, and I doubt not that the *Horticulturist* is at this time well appreciated and extensively taken in their neighborhood.

I have sometimes thought that if some other farmers I know were to bestow a little attention upon the career of these two young men, they might perceive at once the reason why so many among the most bright and enterprising of farmers' sons seek some other occupation, so soon as they are at liberty to do so. Where the mind is not interested, the hand disdains to labor. He who teaches his sons to work as he would teach the unreasoning ox to bear the yoke, must expect the restless mind to long for that activity elsewhere, which he neglects to incite in his own employment.

VINE BORDERS.

BY ROBERT MESTON, GARDENER TO A. J. POLK, NASHVILLE, TENN.

In the July number of the *Horticulturist*, page 311, Mr. Cleveland says: "A controversy has arisen of late years relative to the use of slaughter-house manure, carcasses of animals, &c., as a material in the composition of vine borders." Now, sir, I would respectfully ask Mr. C., if, after nine years experience with his border, composed of sods, shoe makers' chips, oyster shells, and all the bones and carcasses he could get hold of, whether he has succeeded in growing better grapes than his neighbors who have not had the advantage of the same material? If he has, the controversy is ended and every practical gardener will be glad to avail himself of Mr. C.'s experience. But on the contrary, I believe it is the opinion of the majority of practical gardeners that animal matter is not necessary as a material in the composition of vine borders; for this reason the best grapes grown in England and America are produced without its aid. Then, if this is true, where is the economy of using a material that is more expensive to obtain, and, when obtained, is two or three years before it is of any material use to the vine, even supposing it is not injurious while in the state of decomposition. Mr. C. says, "the best authorities I have seen in favor of the practice, do not recom-

mend a direct application of such material to the roots of a growing vine, but only that it should be placed where the roots would find it when it was properly decomposed and fit for their use." Here is an acknowledgement from Mr. C., and the authors he quoted, that animal matter, in a decomposed state, is not fit food for a vine. Then why apply it? I have no objection to animal matter, when properly decomposed, forming a part of the material that is to compose a vine border, as I believe it is good strong food for vines when properly used; but I object to burying whole carcasses to decompose in a vine border, and, when decomposed, to lay them in a bulk. This is my reason: At the time of the decomposition of the carcass, the ground becomes impregnated with the effluvia arising from this mass of animal matter, and renders the ground so affected incapable of sustaining the roots of a vine.

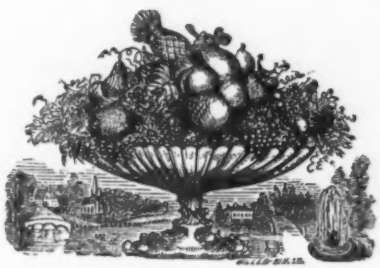
But, according to Mr. CLEVELAND, roots have the power of selection, always seizing upon anything valuable, or to stop short if they meet with any injurious matter. Here I must plead ignorance as it regards the stopping short; do they cease growing, or do they turn around and go another way? or do they mount the beast and get rode to death? Now, as far as my experience goes, they neither stop short or go around, but continue in a straight course without any power of selection. If this is not so, why do we turn up dead roots in a vine border in the neighborhood of unwholesome matter, caused by the decomposition of dead carcasses. I have never seen an instance yet where good wholesome vegetable compost was used in the formation of a vine border, that it ever had to be taken out, or the vines become unhealthy; but twice I have seen all the compost taken out of vine borders where green slaughter house manure had been used in making the borders, and three years lost to the growth of the vine. Mr. C. likewise says, "experience is the best teacher." That I admit; and I must say that my experience teaches me never to use animal matter in the formation of vine borders but in a decomposed state, then to be thoroughly incorporated with the rest of the material. This is the only way, in my opinion, it can be used with safety.

"But," says Mr. C., "my vines have done well—they never have been troubled with indigestion or dyspepsia." That may be true; but they might have done better if there had been no green animal matter in the border. We have here a living proof of the truth of your note to Mr. C.'s letter, where you say that good grapes and heavy crops can be obtained without dead carcasses.

I must here state, that in April, 1851, we commenced the building of two vineries, each 50 feet long. These are lean-to houses, with good flues, cisterns, and every other convenience; the front wall and the foundation of the flues being on arches, giving the vines a space of 50 ft. by 30 ft. to grow in. The borders have been walled, paved and drained; floor, 14 ft.; back wall, 16 ft.; front, 2 ft.—giving a rafter of between 19 ft. and 20 ft. The borders are made as follows: the top spit from where the houses now stand, which would be 1500 cubic feet of good maiden soil, about twenty wagon loads of charcoal to each border, leached ashes, lime, rubbish, and stable manure, with about twenty loads of leaf soil from the woods, the whole being well incorporated. There is not a bone or any animal matter in these borders, and yet

here are as good vines as ever revelled in the carcass of a dead horse. I have bunches of grapes from 2 lbs. to 4 lbs. weight. The largest of the vines are 4½ in. around a foot from the ground, and berries of the *Cannon Hall Muscat* 3⅜ in. around and not yet ripe. Mr. RIVES, of Louisville, saw these grapes this spring and pronounced them to be the finest vines he ever saw, and that I had more grapes on six of these vines than he had in a house of eighty feet that had been planted four years. This was after they had been thinned. I give this statement as a proof that good grapes and heavy crops can be grown without dead horses.

[We thank Mr. MESTON for the very instructive account he has given us of his successful grape culture. There is not, however, a wide difference of opinion between him and Mr. CLEVELAND. Both admit the necessity of animal matter (dead carcasses) being in a decomposed state before the roots of the vines reach it or can derive benefit from it. That roots of vines or any other living plant will soon perish in contact with *fresh* animal substances, no one can doubt.]



Foreign Notices.

THE GIANT LILY—*Lilium giganteum* of WALLICH; *Lilium cordifolium* of DON.—This magnificent Lily has been one of the chief novelties at the late English shows; we trust it will soon find its way across the water. We believe it will be sufficiently hardy for open ground culture in our middle and southern States, at least; but even if it requires greenhouse protection, it will be a great acquisition. Only imagine a Lily ten feet high, with leaves ten to twelve inches long, and eight inches wide, "with white flowers proportionably large and delightfully fragrant!" We quote the following account of it from "*Paxton's Flower Garden:*

"The discovery of this Prince of Lilies we owe to Dr. WALLICH, who detected it in moist shady places on Sheopore in Nepal. 'This majestic Lily,' he says, 'grows sometimes to a size which is quite astonishing; a fruit-bearing specimen of the whole plant, which is destined for the Museum of the Hon. East India Company, measures full ten feet from the base of the stem to its apex. The flowers are proportionably large and delightfully fragrant, not unlike those of the common white Lily.' Nor does it degenerate in cultivation; the flowering plant having attained a height of ten feet in one season; the flower portion occupying twenty inches. Such a raceme of flowers, accompanied by leaves measuring ten to twelve inches long and eight inches broad, must have afforded a striking spectacle. Baron HÜGEL found the plant in the Peer Punjäl pass of the Himalaya, leading into Kashmeer; and we believe that Drs. THOMPSON and HOOKER met with it abundantly in other portions of that vast range of hills. The remainder of our account shall be taken from Dr. BALFOUR's notes, chiefly drawn up from the living plant at Comely Bank near Edinburgh. 'Major MADDEN says the *Lilium giganteum* is common in the damp thick forests of the Himalaya, the provinces of Kamaon, Gurwhal, and Buschur, in all of which he has frequently met with it. It grows in rich black mold, the bulb close to the surface, at from 7500 to 9000 feet above the level of the sea, where it is covered with snow from November to April, or thereabout. The hollow stems are commonly from six to nine feet high, and are used for musical pipes. The fruit ripens in November and December. Stem straight, cylindrical, smooth, gradually attenuated to the apex, nearly ten feet high, five and a half inches in circumference at the base, green, with a reddish-purple hue at the upper part. Leaves alternate, scattered, the internodes varying in length, petiolate, broadly ovate, cordate, acuminate, shining dark green above, paler below, venation reticulated, having an evident midrib, with the veins coming off from it ending in an intra-marginal vein; lower leaves with long petioles, very large, ten to twelve inches long, eight inches broad, becoming gradually smaller in ascending; upper leaves small, sessile, ovate, acute. Petioles of lower leaves twelve to fourteen inches long, thick, broad, and somewhat sheathing at the base, lower surface convex, upper with a deep and broad furrow; petioles of upper leaves short. Bracts ovate, acute, caducous, leaving a semilunar scar. Flowers white, with purple sheaths, greenish below, infundibuliform-campanulate, inclined downwards, twelve on the raceme, fragrant; tube greenish, two inches in circumference at the base, gradually dilating upwards; limb slightly revolute; leaves of the perianth oblong-spathulate, three outer with slight purple streaks inside, three inner rather broader, with a deep purple tinge on the inside, and with a prominent ridge on the outside, sulcated on either side, and two elevated ridges on the inner surface separated by a shallow groove.'—*Bot. Mag.*, t. 4673. There is great reason to hope that this noble plant, of which Messrs. VEITCH have raised an abundance, will prove hardy. At least it can require nothing more than a covering of ashes in winter."

SAXE-GOTHÆA CONSPICUA.—This remarkable plant, to which His Royal Highness Prince ALBERT has been pleased to permit one of his titles to be given, and which will probably rank among the most highly valued of our hardy evergreen trees, is a native of the mountains of Patagonia, where it was found by Mr. WILLIAM LOBB, forming a beautiful tree 30 feet high. In the nursery of Messrs. VEITCH, of Exeter, it has lived in the open air for four years without shelter, and has all the appearance of being well adapted to the climate of England. The country in which it grows is, indeed, more stormy and cold than any part of Great Britain, as is shown by the following account of it, given by Mr. LOBB in one of his letters to Messrs. VEITCH:

"During my absence I visited a great part of Chiloe, most of the islands in the Archipelago, and the coast of Patagonia for about 140 miles. I went up the Corcobado, Caylin, Alman, Comau, Reloncavi, and other places on the coast, frequently making excursions from the level of the sea to the line of perpetual snow. These bays generally run to the base of the central ridge of the Andes, and the rivers take their rise much further back in the interior. The whole country, from the Andes to the sea, is formed of a succession of ridges of mountains gradually rising from the sea to the central ridge. The whole is thickly wooded from the base to the snow line. Ascending the Andes of Comau, I observed from the water to a considerable elevation the forest is composed of a variety of trees, and a sort of cane so thickly matted together that it formed almost an impenetrable jungle. Further up, among the melting snows, vegetation becomes so much stunted in growth, that the trees, seen below 100 feet high and 8 feet in diameter, only attain the height of 6 inches.

"On reaching the summit no vegetation exists—nothing but scattered barren rocks which appear to rise among the snow, which is 30 feet in depth, and frozen so hard that on walking over it the foot makes but a slight impression.

"To the east, as far as the eye can command, it appears perfectly level. To the south, one sees the central ridge of the Andes stretching along for an immense distance, and covered with perpetual snow. To the west, the whole of the islands, from Guaytecas to the extent of the Archipelago, is evenly and distinctly to be seen.

"A little below this elevation the scenery is also singular and grand. Rocky precipices stand like perpendicular walls from 200 feet to 300 feet in height, over which roll the waters from the melting snows, which appear to the eye like lines of silver. Sometimes these waters rush down with such force, that rocks of many tons in weight are precipitated from their lofty stations to the depth of 2000 feet. In the forest below everything appears calm and tranquil; scarcely the sound of an animal is heard; sometimes a few butterflies and beetles meet the eye, but not a house or a human being is seen. On the sandy tracts near the rivers, the lion or puma is frequently to be met with; but this animal is perfectly harmless if not attacked."

It is from this wild and uninhabited country that many of the fine plants raised by Messrs. VEITCH were obtained, and among them the *Saxe-Gothæa*, *Podocarpus nubigena*, *Fitz-Roya Patagonica*, and *Libocedrus tetragona*. Of these he writes thus:

"The two last (*Fitz-Roya* and *Libocedrus*) I never saw below the snow line. The former inhabits the rocky precipices, and the latter the swampy places between the mountains. The first grows to an enormous size, particularly about the winter snow line, where I have seen trees upwards of 100 feet high, and more than 8 feet in diameter. It may be traced from this elevation to the perpetual snows, where it is not more than 4 inches in height. With these grow the Yews (*Saxe-Gothæa* and *Podocarpus nubigena*), which are beautiful evergreen trees, and, as well as the others, afford excellent timber."

SAXE-GOTHÆA may be described as a genus with the male flowers of a Podocarp, the females of a Dammar, the fruit of a Juniper, the seed of a Dacrydium, and the habit of a Yew. Its fleshy fruit, composed of consolidated scales, enclosing nut-like seed, and forming what is technically called a Galbulus, places it near Juniperus, from which it more especially differs in its anthers not being peltate, nor its fruit composed of a single whorl of perfect scales, and its ovule having two integuments instead of one. In the last respect it approaches Podocarpus, and especially Dacrydium; but the exterior integument of the seed is a ragged abortive membrane, enveloping the base only of the seed, instead of a well-defined cup. In a memorandum in my possession, by Sir WILLIAM HOOKER, I find the distinguished botanist comparing Saxe-Gothæa to a

FIG. A. BRANCH OF SAXE-GOTHÆA CONSPICUA.

Podocarp with the flowers in a cone—a view which he was probably led to take by the condition of the ovule, and which may be regarded as the most philosophical mode of understanding the nature of this singular genus; to which Nageia may be said to be a slight approach, and which is not distinguishable by habit from a Podocarp.

In its systematic relations Saxe-Gothæa possesses great interest, forming as it does a direct

Fig. B. FRUCTIFICATION OF SAXE-GOTHÆA.

transition from the one-flowered Taxads to the true imbricated Conifers, without, however, breaking down the boundary between those orders, as I understand them, but rather confirming the propriety of limiting the Coniferous order to those genera which really bear cones instead of single naked seeds. In the language of some naturalists, Saxe-Gothæa would be called an osculant genus between Taxads and Conifers.

The leaves of this plant have altogether the size and general appearance of the English Yew, *Taxus baccata;* but they are glaucous underneath, except upon the midrib and two narrow stripes within the edges, which are a pale green. The male flowers consist of spikes appearing at the ends of the branches, in a raceme more or less elongated. These spikes (fig. B. 1) grow from within a few concave acute scales, which form a kind of involucre at the base. Each male is a solitary membranous anther, with a lanceolate, acuminate, reflexed appendage, and a pair of parallel cells opening longitudinally. The female flowers form a small roundish, pedunculated,

terminal, scaly imbricated cone (fig. B. 3). The scales are fleshy, firm, lanceolate, and contracted at their base, where they unite into a solid center. All appear to be fertile, and to bear in a niche in the middle, where the contraction is a single inverted ovule (fig. B. 4). The ovule is globular, with 2 integuments beyond the nucleus; the outer integument is loose and thin, and wraps round the ovule in such a way that its two edges can not meet on the underside of the ovule;* the second integument is firm and fleshy; the nucleus is flask-shaped, and protrudes a fungous circular expansion through the foramen. The fruit (fig. B. 5) is formed by the consolidation of the free scales of the cone, into a solid fleshy mass of a depressed form and very irregular surface, owing to many of the scales being abortive, and crushed by those whose seeds are able to swell; while the ends of the whole retain their original form somewhat, are free, rather spiny, and constitute so many tough, sharp tubercles. The seed (fig. B. 6) is a pale brown, shining, ovate, brittle nut, with 2 very slight elevated lines, and a large irregular hilum; at the base it is invested with a short, thin, ragged membrane, which is the outer integument in its final condition. The nucleus lies half free in the interior, the fungous apex having shrivelled up and disappeared.

Explanation of the Cuts.—A, a branch with male and female flowers, natural size; B, various details of the fructification, more or less magnified; 1, a spike of male flowers; 2, a male or anther part; 3, a twig and young cone; 4, a scale seen from the inside with the inverted ovule, showing the fungous foramen protruding beyond the primine (outer integument); 5, a ripe fruit; 6, a seed showing the 2 slight elevations upon the surface, and the remains of the ragged primine at the base.—*Journal London Horticultural Society.*

The Recent Flower Show at Paris.—The Société d'Horticulture de la Seine held its show in the Champs Elysées, on the 9th inst., and four following days. To give more *éclat* to this exhibition, England, Germany, and Belgium were each invited to send a judge: Mr. Rivers, of Sawbridgeworth; Mr. Booth, of Hamburgh; and M. Millez, of Lisle, were the three representatives chosen. The show, as compared with those held in England, was a small affair; but the way they manage these matters in France may be of some interest to your readers, and it will therefore be as well if I give the words of one of the "jurors" (the judges are here called a jury), as follows:

"Our letter of invitation told us that we must meet at the house of M. Drouart, Rue Faubourg St. Honoré, at 10 o'clock precisely on the 8th inst. I accordingly made my way there, and found a room full of amateurs, with a few gardeners and nurserymen; by 12 o'clock all had assembled, and we then proceeded to the Champs Elysées, to the tent erected so as to enclose one of the fountains on the left hand of the avenue, about 200 yards from the Place de la Concorde. After some discussion, and after each of us signing our names in a book, 24 judges, or as they say here a 'jury,' of that number were selected; to each was given a silver medal, a free card of admission, and a note of invitation to a 'grand banquet' at the Trois Frères Provençaux, at seven in the evening; we then proceeded to business. The show of flowers and plants was, as near as I could judge, about one-third the extent of those held at Chiswick and the Botanic Garden; the tent was about 80 yards long, and 50 wide, and well filled with plants in groups, on raised beds of earth, turfed at the sides; no specimens were to be seen, but all, or nearly all, were such plants as we see in our nurseries for sale; so that, although the show was pretty enough, there was nothing individually interesting, as in our grand specimens of Orchids, Indian Azaleas, and others. The jury of 24, after some discussion, was divided into two parties of 12 each, one headed by the Marquis de Barthèlemy, the other by the Abbé Berlèze. From 12 o'clock to 6 how we did talk and hold up our heads, and put them down again, and then more talk, and then the prize was awarded or withheld, according to the show of hands; our work, compared to our talk, was

*Since this was written, Sir W. Hooker has placed in my hands a sketch of the anatomy of the female flowers of Saxe-Gothæa, by Mr. B. Clarke, who describes the ovule thus: "Its ovule has the same structure as that of Gnetum, as described by Mr. Griffith, viz.: it has 3 integuments; the internal protrudes, and forms a sort of stigma, not so obvious as in Gnetum; the external has constantly a fissure on its posterior, or rather inferior surface, which, however, does not close as in Gnetum when the ovule advances in growth, nor yet become succulent. Mr. Griffith describes the fissure in the external integument of Gnetum as constantly posterior; and if the ovules of the strobilus were erect, they would agree with Gnetum in this particular."

something like FALSTAFF's bread and sack, but at 6 P. M. we had finished; yes, after six hours' talk, we 24 had awarded all the prizes, and the abbé, in an eloquent speech, thanked us. The banquet at 7 was attended by perhaps 150, Counte de Cazes in the chair; there was again an immensity of talk, much heat, a very few strawberries for the dessert (about five for each person), and some champagne. Our chairman (I suppose it is not the fashion here) did not give either a toast or a speech, nor any one else. At 9 all rose from the table, and the proceedings of the day terminated. I visited the show the next day, the 9th; this was a select day; the price of admission five francs; the attendance was, however, very thin, for not more than 300 or 400 visitors were present. There were two or three stands of cut Roses in glass bottles; the blooms were inferior, for the season here is very late, and but few Roses are in flower. At the entrance was a nice group of Chinese Pæonies, in large pots; these were, perhaps, the most showy plants of the whole exhibition. Two or three collections of Roses in pots, standards and dwarfs, were pretty, but as compared with the pot Roses of the shows in England they were nothing; they were mostly in 8-inch pots, and it was surprising to see them so healthy in pots of such small dimensions. Mr. STANDISH exhibited a box of bloom of his new Moutan Pæonies, which obtained a prize; he was also awarded two other prizes, one for Viburnum macrocephalum, and for Sikkim Rhododendrons. A group of hardy Azaleas, small plants in small pots, was gay, as was also a group of Indian Azaleas; there were three or four collections of Coniferous trees and shrubs, but no large specimens; these included young plants of some of our newly introduced species. A large collection of hardy shrubs, deciduous and evergreen, in pots, was rather interesting, and perhaps worthy of imitation, as it brought under the eye many species but little known, yet worthy the attention of those forming gardens. The Pelargoniums were principally fancy varieties; as groups they were pretty, but I did not see one worthy a second look. The Rhododendrons, in two or three collections, were not worth a thought or a word—the plants were small, and the sorts of a very common description. The Calceolarias were very inferior. The fruit consisted of three or four plates of Strawberries, sorts from seed, and a dozen or so in pots; some Apples, two or three bunches of poor Grapes, a few Melons and Nectarines, the latter I understood came from England. This part of the show was badly arranged, and not at all attractive. On Friday, Saturday, Sunday, and Monday, the price of admittance was reduced to one franc, the attendance was still thin, for I should think there was never more than 300 to 400 at one time in the tent. It was singular to find persons belonging to the Society hawking and calling your attention loudly to the catalogues (1½ franc each), giving the names of the plants, and to whom the prizes were awarded. I paid the exhibition a parting visit just before it closed on Monday; the weather had been cool, and the plants were still quite fresh, except the cut flowers, and the whole, with the large fountain playing in the center, had a pretty effect. I had nearly forgotten the vegetables. There were Cabbages and Lettuces pretty good, but it is in winter vegetables that the French excel; in summer Lettuces, Cauliflowers, &c., we beat them hollow. A bunch of Asparagus from Auteuil was, however, remarkable; many of the sticks measured from 4 to 5 inches round, and from 12 to 14 inches long. A tent and yard attached to the show was filled with garden implements, garden chairs, fountains, models of fruits in composition, very well executed, &c. As far as I could judge, these flower shows are not the fashion, neither do they appear to suit the taste of the Parisians; they are too quiet: there is no music, no eating and drinking, and, above all, no noise, which seems an absolute necessary with the French."—*An English Looker-on, in Gardeners' Chronicle for June.*

HORTICULTURAL EXHIBITION AT CHISWICK, JUNE 11.—The *Gardeners' Chronicle* says:

"The second meeting of the Horticultural Society took place last Saturday, at Chiswick. The day was one of the best possible in England: the sun shone brightly but fitfully, the flowers sparkled, and the air, as it warmed, was filled with their fragrance; while the still unsullied verdure of the gardens, which had now acquired its full development and deepest tone, formed the richest possible frame to the brilliant picture. The number of visitors was 7044, among whom was as usual a very large number of persons of distinction.

"The greatest novelty was a dark-green evergreen bush, called Philesia buxifolia, imported

from South Chili, by Messrs. Veitch. It was just producing, for the first time, its crimson bell-shaped flowers, which promise to render it a valuable acquisition, if, as is believed, and as it has proved at Exeter, the plant should be found perfectly hardy. There was also a pretty New Holland Oxylobe from Messrs. Osborne & Co, of Fulham, and one or two other plants of minor note.

Roses were in perfection; no longer, however, small straggling bushes, as they have usually been, but stately, erect specimens, loaded with flowers, as if in the open ground. Green-house and stove plants were still defective as regards variety and novelty, but as examples of cultivation unsurpassable. A Coleonema rubrum, from Mrs. Lawrence, was especially admired for graceful form, and the most ample development. Examples, too, of Heaths, were not uncommon, which 20 years since would have been believed to be fabulous. As to Orchids, we have exhausted ingenuity in the endeavor to find sober terms expressive of their beauty, and we can only now declare that they leave nothing to be accomplished by mere cultivation; one of the Saccolabes was a living fountain, gushing with streams of glittering blossoms.

"The fruit-growers have evidently decided upon showing that they are not in skill behind their floral competitors in any branch of their art except Pine Apples, none of which call for remark. The Grapes were quite admirable; and no such Strawberries as those from Mr. Smith, of Twickenham, have been seen since the day when the Speaker of the House of Commons astonished the world by the produce from his garden at Heckfield. Never up to the present time had such Muscats been shown in June as came from Mr. Peto's place in Suffolk; they would have been regarded as very fine specimens for October. Nor should the Frontignans or Black Hamburgs and the Grapes in pots be passed over without special mention in this place.

"Upon looking at the entries on this occasion, we find that 79 persons produced 185 different subjects of exhibition, and that 124 medals were awarded; so that it would appear as if each exhibitor received rather more than a medal and a half; or, if we express the result in money, that about 320*l.* were given away in prizes, so that each exhibitor received something more than 4*l.* But this is very far from the fact; the number of exhibitors receiving prizes having been in reality 64, and 15 having been nowhere. Nor can any useful average of the sums received by each be struck, in consequence of the great variety of medals contended for and won. For instance, one exhibitor, (Mrs. Lawrence) gained 7, one (Mr. Taylor) 6, one (Mr. Green) 5, five 4 each, seven 3 each, and sixteen 2 each. And the value of the prizes was as different as the numbers, one exhibitor (Mrs. Lawrence) having gained 46*l.*, and two of the double prize men only 2*l.* 5*s.* And so it must always be; great winners, small winners, and losers making up all such competitions.

"Roses in pots were again shown in admirable condition. Messrs. Lane, to whom the first prize was awarded, produced Coupe d'Hebé, in the form of a stately pyramid, nearly five feet high, and covered with perfect blooms; associated with it was also the beautiful Souvenir de la Malmaison, large and fine, though slightly past its best; Queen was in perfection, and Magna rosea was nearly as tall and fine as the Coupe d'Hebé just mentioned. Others consisted of Chénédolé, Duchess of Sutherland, Paul Perras, and other favorite sorts. Mr. Francis produced good specimens of Juno, a hybrid China, with delicate pink blossoms, having a rosy center; Coupe d'Hebé, Chénédolé, Baronne Prevost, Comte Boubert, General Allard, Paul Perras, La Reine, and La Pactole. The latter had been fine; but having been long in blossom, its beauty had become a little tarnished. The blooms of La Reine were large and showy, but somewhat confused, a fault to which this variety is liable. In Messrs. Paul's group we remarked Great Western, a fine Rose, but apt to show a green eye; Blairi No. 2, Caroline de Sausal, a new and beautiful kind, with delicate pink flowers, having a rosy center; Madame Legras, a good white, and others were furnished in good condition. In the amateur's class a fine group was contributed by Mr. Terry, in which were well-bloomed plants of Baronne Prevost, Blairi No. 2 (scarcely out enough), Chénédolé, Elise Sauvage, Coupe d' Hebé, Paul Perras, Lamarque, Sophie de Marecelly, Tromphe de Laqueue, Bougére, and Niphetos. A collection from A. Rowland, Esq., comprised Coupe d' Hebé, in great perfection; Augustine Mouchelet, a pretty rosy crimson kind; Auguste Mie, Paul Ricaut, a very fine rose; Baronne Prevost, in capital order; and the yellow Vicomtesse Decazes. Mr. Francis received a silver Knightian Medal for a nice collection on Manetti Stocks in small pots; among them we noticed Paul's new Queen Victoria, and many good old

sorts. Mr. TERRY and Mr. BUSBY showed each 25 varieties of cut Roses, which, notwithstanding the heat of the day, kept in good condition, and were much admired.

"Novelties consisted of the crimson bell-flowered Philesia buxifolia; Lilium giganteum, a fine specimen; an Ixora, very like Bandhuca; and a piece of a coarse white-flowered Umbellifer, called 'Gulper,' which was stated to be a persian drug used in all Indian pickles, to give their peculiar flavor, from Messrs. VEITCH; an orange-flowered Oxylobe, from Messrs. OSBORNE, of Fulham; Dictyanthus Pavoni, and a purplish-blue Scutellaria, from Messrs. E. G. HENDERSON, Wellington Road; and the Warrea discolor and Lady's Slipper, &c."

BEDDING ROSES.—One of the first essentials in a bedding Rose is, that it should stand well up on its foot-stalk. For a pole or climber the reverse of this would, of course, be the most graceful; one is to be looked down *upon*, the other *up at*. If this is remembered, the value of such qualities in their respective adaptations will at once be recognized. However abundant or prolonged a bloomer a Rose may be, if it droops its flowers, half its effect in a bed is entirely lost. And if a shower of rain falls, the accumulated moisture, acting by its weight on the feeble foot-stalks, increases the evil. A bed of such Roses can never give satisfaction. Scrambling Roses, to be pegged down during their season of growth, do not make the kind of effect in beds that one could wish. I would have all worked plants, selecting them with different heights of stock, to suit the different positions in planting; the dwarfer on the outside, the taller in the center. I should not expect great results the first season of planting. During that period I should have an eye to the formation of the head, endeavoring to extend it horizontally as much as possible. When once the surface of the bed becomes over-arched with good flower-bearing wood, and the luxuriance of the plants is checked, supposing the kinds of Roses to be suitable, nothing in the way of massing could be more beautiful. This may be inferred from the effects of a single head of a free-blooming standard of any kind. To get good beds some little time must be consumed in the preparation. One must not be impatient. Young and luxuriant plants will never realise all that is expected of them. But there is no reason why the necessary preparation should take place in the flower-garden. The reserve-ground is the proper place for preparation, and Roses may be prepared there as well as in the beds in which they are to flower. Suppose two seasons' probationary treatment is required, they can there be attended to, and transplanted in full condition to their allotted beds in the garden. To treat Roses as ordinary bedding plants, and selecting from them at random, must ever end in partial disappointment; and from not giving the subject due consideration, and taking the necessary precautions, doubtless arises most of the disappointment in this branch of gardening.—*G. L., in Gardeners' Chronicle, London.*

NEW PELARGONIUMS AT REGENT'S PARK SHOW.—Of seedlings, there was a considerable number. The medal for the best scarlet was awarded to Mr. HOYLE, for Regalia, a flower brighter than any other yet exhibited, and of good form; it is also much freer than scarlets generally. Among other seedlings from Mr. HOYLE we noticed Zeno, a large even flower, of good shape, dark top, with rosy bottom petals, and clear white center; Carlos is another of this class, but darker in the top, and larger—a noble flower for exhibition. Nonpareil has the best shape and is the freest bloomer of all the spotted kinds, being large and very smooth. Eugenia, another of this showy class, is well marked, and also of good shape. Rival Queen is warm orange rose, with clear white throat; large, and a free bloomer. Majesty has black top petals, margined with rosy purple; lower petals light, throat clear white; a very large flower. Mr. TURNER exhibited two seedling whites, free bloomers, and of good shape. Also Astarte and Una; these were raised by W. HOCKEN, Esq. Duchess of Wellington appeared to be a good stout flower, darker, and of better shape, but as free as Constance, which it resembles in habit. Pilot is a bold free crimson scarlet. Others were of less note.—*Gardeners' Chronicle, London.*

Editor's Table.

THE CURCULIO.—There is, after all, *some* prospect of discovering an effectual remedy for the curculio. The Hon. JAMES MATHEWS, of Coshocton, Ohio, from whom we had a communication on this subject last winter, writes as follows:

"I have been experimenting thoroughly this season on my discovery of last year of what I then supposed to be a remedy for curculio. I have applied remedies based upon three separate theories, suggested to my mind by my experiment of last season. All have failed but one, which has proved successful beyond my most sanguine expectations. I have saved the fruit on five plum trees and one apricot tree. Last year was the first that I raised a dozen plums in my garden, and I never saved an apricot till this season. I had destroyed all the trees of those which I had, on account of the supposed impossibility of saving the fruit, except one tree of the *Black* apricot, on which I now have perfect fruit, ripe, not one of them having been stung since I applied my remedy. I am now satisfied that I have found a sure and easy remedy, and all who see the crop of fruit that I now have are likewise convinced. The trees on which I have saved the fruit, are one *Green Gage*, one *Yellow Gage* (Prince's), one *Caledonian*, one *Knight's Green Drying*, one *Royal Hative*, and one branch of *Kirk's Purple*, from a bud of four years' growth on my *Black* apricot. I shall have several bushels of perfect plums. In order that my remedy may be more thoroughly and satisfactorily tried and demonstrated, if it be efficient, I shall submit it to horticultural committees, in some of the States, next spring, with *specific* instructions. One of these shall be New York; and if they report favorably, I shall then make it public, with all my observations of this insect for the last year, which I think will bring to light some new theories and new developments heretofore unknown and un-thought-of, in relation to the character and habits of this enemy.

"Having, however, spent so much time, labor and investigation, to discover the remedy, (if it prove to be effectual when put fairly to the test,) I may not give the matter full publicity until horticultural societies in the country feel interest enough in the matter to offer such premiums as a discovery of this character may merit. I shall plant an orchard in the spring, of plums, nectarines, and apricots, with full confidence that I have nothing further to fear from the depredations of curculio."

We may state in this connection, that for several years we had abundant crops of plums without any other remedy than shaking the trees and destroying promptly all punctured fruit.

LIME AND SULPHUR VERSUS THE CURCULIO.—This is the third season that I have been successful in destroying the eggs of the Curculio after they were deposited in the fruit, and I therefore do feel assured that the compound used by me is an effective remedy, (found in Vol. VII., page 432.) I strongly recommend its general use, and if it is thoroughly applied I have no doubt that in a few years this vexatious little beetle will no longer be considered a pest, but rather as a welcome visitor, to aid the trees in throwing off part of their crop, in order that those which are left behind may be better grown, and more finely ripened. THOS. W. LUDLOW, JR.—*Yonkers, Westchester county, N. Y.*

THE FARMERS, GARDENS, AND LADIES OF NORFOLK COUNTY, MASS.—A correspondent of the *Boston Herald* thus speaks of the gardening operations, ladies, &c., of Norfolk county. He seems to have overstepped the bounds of sober prose, but this is to be expected on such a subject:

"Among our agricultural friends, notes of preparation are sounding in all directions. For amusement and recreation we have of late preambulated many of the towns in Norfolk county. The farmers commence the spring campaign under unusually favorable auspices. Vegetation is opening before us in the similitude of locomotion; the blossoms of the Peach, Cherry, and the Plum indicate that Providence is preparing for us an abundance of the most luscious fruit. The ladies (dear creatures and charming souls) have, in good earnest, pitched into their tulip and dahlia beds; they are up with the lark, and down with the noon-day sun. In the cultivation of flower gardens they not only exhibit excellent taste, but from the exercise consequent thereon, expand their mind and improve their health—that great desideratum with the sex. If your city 'young bucks' have a desire to behold just the prettiest misses out, fresh from the mint and harmless as doves, let them (we do not mean your 'dandy Jims') arise with the sun, and with the *team* nature has given them (their feet and legs), walk into Norfolk county, and from Dorchester to Quincy, and from Quincy to South Weymouth (if they are not too lazy to walk thus far), and they will find females, with their pink bonnet and hoe, out in almost every garden, and will be convinced why and wherefor our Norfolk county ladies are so much admired for their glowing health, ruddy cheeks, matchless forms, and amiable dispositions.

"Our young misses are now so universally educated, that to speak within bounds, at least, in Norfolk county, ninety out of one hundred are competent and qualified 'school marms'—are well skilled, and have a practical knowledge of house-keeping, and all the appurtenances thereunto belonging. Many of them understand their rights, and knowing them, dare maintain them.

"The two most extensive and princly farmers in Norfolk county are, unquestionably, Hon, BENJAMIN V. FRENCH, of Braintree, and Hon. MARSHALL P. WILDER, of Dorchester. Both of them are alike distinguished in political and agricultural spheres. Hon. Mr. FRENCH was a member of the Executive Council under Gov. MARCUS MORTON. Hon. Mr. WILDER was late President of the State Senate under Gov. BRIGGS. They are both merchants as well as farmers. No person without a merchant's revenue can carry on, with the perfection of these gentlemen, and on so extended a scale, the farming business. The green-house of Hon. B. V. FRENCH, and plants in full bloom, is the most splendid natural curiosity now in the vegetable kingdom in Norfolk county."

How much better would it be for our country—how much it would increase their own happiness—if hundreds and thousands of our rich men would follow the example of Messrs. FRENCH and WILDER.

MULCHING.—This is an operation in tree management that begins to be pretty well understood and appreciated.—A very intelligent and observing lady, of Port Gibson, Miss., writes us as follows:

"This matter of mulching, I should say, from my own experience, is a very important one—in fact, (with proper planting,) it is the one thing needful to the success of fruit trees at the South, from the Northern nurseries. Mr. AFFLECK, of the nurseries near Natches, dwells very earnestly on the difficulty of acclimating such trees here; but mulching removes this, at least so my success hitherto goes to prove; and, experience apart, common sense would show us that if it is useful at the North, it must be much more so at the South, in our very long, scorching summers. Sheathing the bark of the tree in straw cannot promote its health, I should think; and I see it affords shelter to mice in the North, as it would to our great enemy, the ants, in the South."

Raising Fruits from Seeds.—I have read with pleasure, and I hope with profit, too, your remarks on "Raising Fruits from Seeds," and the importance of husbanding "home resources." Too little attention to this important subject has hitherto been paid by fruit-growers; I trust your well-timed and judicious remarks will wake up a new and livelier interest in improving the native fruits, by a more general and thorough cultivation. There is much meaning in the word *cultivation*, whether applied to the heart or the mind, the garden, the orchard, or the farm. All need careful, constant, and thorough cultivation. To plant a rose, or a raspberry bush, and leave it to "cut its own fodder," or neglect it in its infancy, is not cultivation, any more than for a mother to neglect her infant offspring, and deny it the food congenial to its nature, would be to nurse and cherish it during its helplessness, and prepare it for usefulness, and the rich fruits of a long and virtuous life. If we would hope for rich clusters of good fruit, we must not only plant and transplant, but carefully nurse, feed, cherish, cultivate; and the process must go on and on, unto perfection. The wild flowers in our fields, and the wild berries upon our plains, in our valleys, and upon our mountain tops, are susceptible of great improvement and perfection by cultivation. These wild natives of the forest—the long blackberry, the red and the black raspberry—are all vastly improved in size and flavor by being removed from the forest and the field to the garden, and, under the watchful eye of the gardener, receiving food adapted to its nature, in the form of manure, and proper cultivation, doubles its size, and more than trebles its value for the table. What a luxury to the lovers of fruit is a bowl of berries plucked from the bush in your garden, planted, nursed, and cultivated with your own hands! That luxury it has been my pleasure to enjoy for a number of years, in the shape of native gooseberries, of the smooth species, blackberries, white, red, and black raspberries; they have more than doubled in size and amount of fruit, and increased in richness since taken from the woods and cultivated in the garden. The black raspberry, especially, is easy of cultivation, and is multiplied to any desirable extent by barely placing the end of a luxuriant twig, while in growth, an inch or two in the earth. In a few weeks the top thus buried in the soil takes root—cut it six inches from the ground, and you will have a fine plant growing with great luxuriance, but upwards, and ready for transplanting the ensuing autumn or succeeding spring. I have a fine bush of the *white* blackberry, a native of the Green Mountains of Vermont, in great perfection, and capable of being divided and transplanted into many bushes next spring, and hope, in due time, to accommodate myself and neighbors with this delicious fruit for the table. I may seem a little enthusiastic, but, believe me, there is a luxury in cultivating and partaking of the fruits of the earth, as well as in receiving and in doing good. E. P. W.—*Montpelier, Vt.*

"The Spring Flower Garden," in the June number of the *Horticulturist*, is so much to the purpose, and the idea of planting bulbs when in full bloom, comes home so close that I should have thought you were "poking fun" at us, if I had not known the practice to be so common elsewhere. There is, however, another error very frequent at the south-west, in planting what are generally called Dutch bulbs. Many suppose because winter sets in later, and digging the garden can be done in some seasons even late in December, that bulbs may be planted later here than at the north; but it ought not to be so. These bulbs bloom much earlier here than with you, and if kept out of the ground till late, they have to bloom before they are ready (if the expression be a proper one), and the flowers will be poor. On the 23d of December, 1851, I planted two dozen Tulips, of the same kind I had planted already in the middle of October; the bulbs were, to all appearance, perfectly sound; they came into bloom almost as early as those of the first planting (only three days difference), but the flowers were small, lasted only a few days, and when I came to take up the bulbs, they were lean and lank, having none of that solid look one expects to see in a Dutch bulb. I usually plant my bulbs in October—the fore part of November will do very well, but the only excuse for planting late in December should be the impossibility of getting the bulbs sooner. J. M. I. Smith.—*Fayetteville, Ark.*

Trees and Plants of Florida.—In the *Horticulturist* for August I notice that a Louisiana correspondent takes me to task for certain alledged errors of statement (in the April number) concerning the trees of Florida. As a resident of the South, he is to be presumed more competent to speak in this matter than I, a sojourner of two winters only. He will notice, also, that I said in the preface to my article, "I do not aim at special accuracy, or fulness of detail," &c.; and yet, I think he has magnified my errors.

My statement that the *Magnolia grandiflora* puts forth new leaves, and that it blossoms in the month of March, is substantially correct. In the vicinity of Jacksonville, during the last half of the month, I observed, daily, the falling of old leaves from the *Magnolia*, and the growth of new ones; and I watched with great interest the coming out of the beautiful, white, downy flower-buds, until the last few days of the month, when, being obliged to leave the country, I plucked several fine specimens to press and carry to the North. I have now before me several of these clusters, showing the young leaves, and the flower-buds, as large as a full-grown butternut. Besides, as I was speaking of Florida as a State, and not of its northern part, where Jacksonville is situated, and as I had been often told by Floridians that vegetation in the middle and southern parts of the State is a fortnight earlier than in Jacksonville, I thought myself justified in saying that the *Magnolia* flowers in March.

Let me beg a little mercy, also, for the statement that at this early period, "trees of all kinds put forth fresh leaves." The Black Walnut and the May Hickory, of which Mr. Lawrence speaks, I never saw; but having noticed that such deciduous trees as the Mulberry, the Peach, the Pride of China, the Soft Maple, the Red-bud, the Cypress, the Gum tree, the White Locust, the Wild Cherry and Plum, several varieties of the Oak, and other trees whose names I was ignorant of, were in full leaf, some of them in February, and all of them in March, I thought it correct to say as above; I did not see a leafless tree in the latter part of March.

As to the Pomegranate, if my friend means to say that it does not blossom in March, I can only reply that I saw an abundance of its flowers during that month, and that I have now in my portfolio a perfect blossom which I gathered in that month, and pressed for preservation.

As to "the little brown flowers of the long trailing moss" appearing in March, I reply by sending you a specimen of the flower and the moss, which I gathered during March. The flower is, doubtless, a darker brown at present, than when it was first plucked.

I can not but think that the climate of "Laurel Hill, La.," is colder than that of Florida. I trust, also, that the large-heartedness and courtesy of the Southerner will pardon the seeming errors of my first paper, and the freedom of this reply to his strictures upon it. A. D. G.—*Clinton, N. Y.*

Culture of Tomatoes.—For several years I have taken special pains in the cultivation of a superior kind of tomatoes. They are very large and smooth, perfectly solid inside, and of the finest and richest flavor. Their reputation is firmly established here and wherever else they are known. I received, last evening, a letter from a gentleman in Brooklyn, in your State, requesting some practical directions about trimming and training them. The following is a copy of my reply:

The laterals, as they appear, should be taken off from the tomatoes up to the first blossom bud. When they have reached the height desired, they should be shortened in. This is done by nipping off the terminal buds. A trellis upon which to train them is readily made by setting stakes behind each row slanting very considerably backward. On these, lath may be nailed about a foot apart, or wires may be stretched. Each branch of the tomatoes will need to be tied at first, but afterwards it will be sufficient to run twine from stake to stake in front of them. Mine have been trimmed and trained in that manner for many years. They are now about six feet high and have been shortened in twice. They are as healthy, and thrifty, and full of fruit as one could wish. The fruit or vine thus treated is as much superior to that obtained without trimming or training, as is the rich, luscious peach from the topmost bough to the green and tasteless specimens from the middle or shady side of the trees. Charles Robinson.—*New Haven.*

TREATMENT OF A ROSE BUSH.—I have possessed for many years a very fine grafted Rose bush of the kind called *Cloth of Gold;* these possess the peculiarity of blooming finely and freely, with very large flowers, when in the green-house; but in the open air the roses are not nearly so remarkable. My bush began to run some three years ago very rampantly; but my gardener regularly cut it down to produce grafts from, losing the roses. I determined to "make an example" of the specimen, and proceeded as follows, with what results you shall hear.

I planted the bush under the drawing-room front window, and made a plant-case, covering the sides with bark to make it sightly. As soon as heavy frosts set in, I bent down the stem and fixed it there with a pronged stick, covering the whole, which had now a fine head, with glass. Being near the door, and under constant observation, I treated it as is usual with salad or cucumber beds—that is, I gave it plenty of air when the sun was on it, or the air was sufficiently warm.

The result has been, my pet has been raised up in the spring in the most extraordinary vigor, health, and beauty. This year it came forth with eighty-four enormous buds, followed by giant flowers, so much so that it became a perfect show to the neighborhood. I branched the runners to stakes, and it now measures twenty-one feet in length, and next year will mount to the second story on a special trellis. It is now perfecting a second series of buds, and will continue to bloom till late in the fall. I may add, that I have watered it and my other roses once a week with a solution of sulphate of ammonia, in the proportion of one pound to thirty gallons. Lovers of roses will do well to try the experiment with *Cloth of Gold, Soffrana, Solfatare,* &c. J. J. S.—*Germantown, Pa.*

I READ with much interest in the *Horticulturist* for June, 1853, "Hints on Pinching." It was confined to pinching trees, but it recalled to my memory an experiment I once made in Newport, R. I., with some cucumber vines. I had a narrow border, not more than two feet and a half wide, on the edge of a paved yard enclosed by a high board fence. I planted three cucumber hills in the border, and laid some brush (such as are used for pea-vines) between them and the board fence. As soon as they crept up to the top of the brush, I pinched off the ends of the vine which thickened rapidly around the roots, and in every direction throwing out the most vigorous foliage and a profusion of flowers. I did not allow the cucumbers to grow large, but watched them, and such as I wished to reserve for the table, I picked as soon as they became of proper size; all the rest were carefully gathered *every day* for pickles, *every day* pinching off the bud at the end of *every* shoot. In this way the hills continued fresh and productive until they were touched by frost. Some judgment can be formed of the value of this practice when I add, that more than a barrel of pickles were made from the three hills, beside allowing a supply for the table. Whenever a leaf began to look rusty or yellowish it was removed, and every cucumber and leaf was cut off with large scissors, so as not to disturb or wound the vine. There is an advantage in having them run up on bushes instead of trailing over the ground, because they are much injured by being trodden on; and by being kept low on the bushes they can be easily and thoroughly examined every day, which is essential, for if one or two cucumbers are overlooked and grow very large, it stops the yield of that vine. H. S.

SHELTER.—A correspondent writing from Trumansburg, N. Y., says:

"I think your article on 'Shelter' is particularly applicable to my case, as I have an orchard of from one to two hundred peach trees growing in an exposed situation which have been old enough to bear three years, and not a peach has yet set on them, to my knowledge, though the trees grow very luxuriantly, so much so as to attract the attention of all who see them. I attribute their failure to produce peaches to the cold winds, as peach trees within eighty rods of them bear regularly though in no more favorable situation, except having buildings and an apple orchard on the north-west of them, which screens them from the cold winds."

Strawberry Planting.—I notice the remarks in your last number of the *Genesee Farmer* on the planting of strawberries. I have made trial of planting at all seasons, and of all other periods I prefer the month of August for this State and all north of it, and September for the States further south, and October for the extreme South. During the present month, which has been one of uncommon heat, I have had at least fifty new beds planted, and I have not lost a single plant. We dip the roots in a puddle and water the plants as soon as set, and turn a flower pot over each, during the day, in the small beds, and spread mats over the large beds, removing them all at evening. This is continued for five or six days. The prominent advantage of planting thus early is, that the plants become well established before cold weather and considerably increase in number, and you are sure of a fair crop the ensuing season. Wm. R. Prince.—*Flushing, L. I.*

Notices of Books, Pamphlets, &c.

Annals of Pomology: Published by the Belgian Royal Commission. Brussels, 1853.

Some time ago we mentioned the announcement of this work. Under the circumstances we naturally formed very high expectations of the merits, not only of its scientific accuracy but of its artistic execution. We are somewhat disappointed. It is in quarto form, well printed, on good paper, but the colored plates, we must say, are unworthy such a work. To be sure there is an edition of a small number of copies said to be on finer paper and colored with particular care. This cannot be the one sent us; but we supposed they would all be colored with care. The letter press descriptions are, as far as we have examined them, very complete and accurate. The subjects of the first three numbers are, the *Winter Bonchrétien*, the *Counseiller de la Cour*, the *Marie Parent*, the *Duchesse d' Angouleme*, the *Duchesse d' Angouleme panachée*, and the *Brown Beurré* pears; the *Pomme Api Etoilée* (double or five-sided Lady apple); the *Victoria* raspberry; the *Princesse Royal*, *Reine des Belges*, *Royal Pink*, *Goliah*, and *Mammoth* strawberries; the *Reine Hortense*, and *Napoleon Bigarreau* cherries; the *Muscat blanc hatif de Jara* grape.

The editing committee are Messrs. De Bavay, Bivort, Henneau, and Royer.

It is published in numbers without any fixed date. Each number contains four plates. Price, 24 f. per annum.

A Treatise on Insects injurious to Vegetation: By Thaddeus William Harris, M. D. Second Edition. Boston, 1852.

It would appear that insects injurious to vegetation are every year increasing in numbers, and this, with a greatly increased attention given to cultivation of late, has awakened, on the subject of entomology, a very general and active spirit of inquiry. On all sides people are seeking information concerning the names and habits of insects; they find, by dearly bought experience, that without some such knowledge it is almost impossible to contend successfully with the swarms of greedy bugs, beetles, caterpillars, and other pests that prey upon their crops. A large portion of the Eastern States have been severely scourged the present season with the "*Palmer worm*," so called. It has also been destructive in some parts of New York. The *Rose slug* has made its appearance in localities where it was never seen before. Species of *Curculios*, hitherto rarely seen, have been destructive in some places. The *Apple borer*, too, has, we are advised, found its way into new regions. These and similar facts, are sufficient to call attention in earnest to the study of insect life and habits, and to give importance to works touching upon this subject. This treatise of Prof. Harris is the only one we have in this country of general practical utility. The first

edition was issued some ten years ago. "It formed one of the scientific reports which were prepared and published by the Commissioners on the Zoological and Statistical survey of Massachusetts agreeably to an order of the General Court, and at the expense of the State." The present edition is much enlarged and improved; a great amount of information and experience has been collected and embodied in it, adding greatly to its value. It contains a full account of the *Psylla pyri*, an important insect that has infested pear trees in some localities, some account of which was given in the February number of the *Horticulturist*. The *Chinch bug*, a destructive pest of grain crops in some localities; the *Angoumois moth*, or flying weevil; the *Eurytoma Hordei*, or joint worm; the *Hessian fly*, and *Wheat fly*, all notorious depredators on field crops have been fully and minutely treated of. There is also an account of the *Cotton worm* of the South, and of insects falsely charged with the potato blight. All the latest experience in regard to insects injurious to fruits and flowers, have been carefully collected and furnish information of the greatest value to every cultivator. The work has but one defect, and that is, the want of illustrative drawings that would enable persons unlearned in entomology to identify insects. We trust that measures will be taken to supply this defect. The example of Massachusetts, in ordering the preparation of such a work as this, should be imitated by every State in the Union; in no other department of science could the necessary cost be better expended. The preparation of this treatise is not the only way in which Prof. HARRIS has conferred benefits on agricultural and horticultural pursuits; he is daily imparting information through the press and by private letters. We should wish to see him in a position, if it were agreeable to himself, where his entire attention might be devoted to this subject.

Answers to Correspondents.

ALTHOUGH a novice in fruit-culture, I propose to state a few facts which I have learned by observation the present season, and propose a few questions for information from you.

I have a dwarf Pear tree (*Duchesse d' Angouleme*), set last season, which grew luxuriantly, and started finely this spring, and was in blossom, when we had quite a severe frost (not to the material injury of fruit blossoms), a few days after which the leaves on this tree turned black and dropped off. The limbs at the extremity became black, and black spots appeared at the base of the buds, and although I cut away all the diseased parts the tree has not started, and will probably die. Was this caused by the frost?

The green aphis has made its appearance on some of my trees, and I have observed that they are found only on trees infested with ants, and find the ants collected on the leaves and shoots with the aphis. On applying the tobacco wash, the ants will collect on other parts of the trees, and the aphis will then appear in a day or two, and I have thus far found, without exception, that where ants infest a tree the aphis are found, and where there are no ants, no aphis can be found. Do the ants produce aphis. (1.)

I observed the communication of Mr. B., of Kenosha, in the May number of the *Horticulturist*, and will say that the bark-louse is found on trees obtained from nurseries here, and I find that on my trees they extend to the extremity of the last year's growth; and I have just been into an orchard of bearing size, and find the trees completely coated with lice from the ground to the extremity of the limbs. Can the wash you recommend be applied to all parts of the tree without injury? (2.)

I had seen it stated that the bursting of the bark of Cherry trees at the West was probably caused by their rapid growth; and to guard against this, I set my trees in grass ground, and have not manured at all, but have kept the ground clean for several feet around the base, and

mulched in the summer season, and they have grown very slow. I have a *Black Eagle*, that was set out two years ago, and has not grown a foot in that time, and does not exceed two inches in diameter, and the bark has cracked to the wood this season. A. O. Babcock.—*East Troy, Wisconsin.* (3.)

(1.) The reason of your finding the ants and aphis always in company is, that the ants feed upon a sweet fluid discharged by the aphis. You will see this if you observe closely.

(2.) The wash recommended in the May number may be safely applied to all parts of the tree on which bark-lice may be found.

(3.) Rapid growth may contribute towards producing the malady known as the bursting of bark, but it is by no means the sole or chief cause. A tree, growing slowly, may have soft, imperfectly matured wood, as well as one growing rapidly; rapid growth is safe enough if made at the proper season—say June or July. The bursting of the bark is the result of injuries sustained by the freezing and thawing of winter. The vessels, or cells, become disorganized by expansion and contraction, and the sap becomes diseased. Cherry trees of a hardy nature, such as Dukes and Morellos, and those well sheltered from the sun and cold winds in winter, or protected by some covering, escape injury of this kind.

Fruits, and Fruit Trees in Illinois and Wisconsin.—This is our bearing year for peaches. There will be an abundance of seedling peaches in the northern part of this State this year, and, I believe, through the whole State. They do not bear oftener than once in three or four years, and, with me, seedlings have been much hardier than any cultivated variety that I have tried. Winter before last, I presume, one-third of all the peach trees in Northern Illinois were killed. Mine were more than one-third killed in all situations except a row of about fifty trees planted on the west side of a tight board fence six feet high, where none of them were killed, and I think this is a fact worthy of note in a country where the peach tree is so liable to winter-kill. Apples grow well all over the prairie country, and pears promise well in this vicinity. Your fruit-men who have sent their tens of thousands of barrels of apples and pears yearly to sell here must look elsewhere for a market soon, as young orchards are coming into bearing all over the country, and each year our nurserymen are increasing their sales greatly. I can get no pears from the *Duchesse d' Angouleme;* they blossom early and very full, but seldom set any pears, and when they have set, the wind blows them off before they get ripe.

Do you know anything about a very large peach originated in Poughkeepsie called the *Pine-apple Cling.* If it is so large and fine as I have heard it recommended, I should want to get it. (1).

I want some good blackberries to cultivate. Our native fruit is not very good. Do you know where I can get the best variety; and do you know anything about Mr. Lawton's variety of *New Rochelle*, which was noticed in the *Horticulturist?* (2). John Gage.—*Waukegan, Ill.*

(1.) A synonym of the *Lemon Cling*—a very good variety.

(2.) It is said to be a fine variety.

I received some Deodar Cedars this spring and planted them just as they came from the nursery, and I now find that some of them have three or four leaders or stems all in a clump, of about equal strength, while others have only two. Should I cut them all down to a single stem or not? They look very handsome in their present condition, being only two or three feet high; but what their appearance might be when they arrive at considerable size I cannot tell, as I have only seen small plants. A. J. N.—*Montgomery, Ala.*

Select the strongest and best placed shoot for a leader, and encourage it by tying up and pinching the others slightly.

I AM growing a few native grapes—training them with two horizontal shoots at the bottom of the trellis, and thence perpendicular shoots at intervals, but am at a loss to know whether or not I would be correct in pinching off the shoots immediately on their reaching the top of the trellis (about five feet high). I am advised by some to allow the shoots intended for next year's fruiting to grow as far as they can, and only to cut at the annual pruning, and by others as above. Now, Mr. Editor, would you have the goodness to tell me which is correct. A SUBSCRIBER. *Hamilton, Canada West.*

Let the leading canes grow as far as they will, stopping them only late in the season to ripen the wood, when there will be no danger of causing the buds for next year's bearing to push. Pinch all the side shoots at the second leaf, and the fruit branches at the second joint above the the fruit.

I have a plant of the *Tecoma grandiflora*, but unfortunately it seems rather tender, having been winter-killed for two or three years. It has now blossomed, and I am desirous of raising some seedlings in order that they may be hardier than the original. In what way shall I proceed with the seeds, if any come to maturity? D. L. J.—*Birmingham, New Haven Co., Conn.*

Keep the seeds till spring, in the pods; then sow in dry, fine soil, just as you would seeds of the Catalpa. Cover lightly. Young plants need protection in winter, for a year or two, until the wood becomes firm. Grafting on the *radicans* is said to make the *grandiflora* more hardy. We have not tried it.

Will you, or some of your numerous correspondents, be so kind as to inform a subscriber to the *Horticulturist* what quantity of grapes it will take to make ten gallons of wine, and also the best recipe for making wine? The grapes are grown under glass, and are the *Catawba* and *Isabella*. MAURICE LANDERS.—*Chicopee, Mass.*

We must recommend you *Buchanan's Treatise on the Culture of the Grape and Wine Making*, which will furnish all the information you want.

Will you inform me if bones boiled soft, such as can be had at glue factories, is valuable manure for young pear trees from two to five years old? How should it be applied, and how much to each tree? A SUBSCRIBER.

Will some one answer who has used bones in this way?

(J. B., Channahon, Ill.) BUDS, OR SCIONS.—We prefer to propagate from vigorous, healthy trees on pear stocks, though it is perfectly safe to take buds or grafts from healthy trees on quince stock. The difficulty is, that on the latter the trees bear so early and so abundantly as to become enfeebled, unless very well managed.

(T. B., Trumansburgh, N. Y.) INSECTS.—The bug you speak of may be the *May Beetle*, and the only remedy is to shake them from the trees in the evening and destroy them. They may not trouble you so much in many years to come.

Your requests have been attended to.

Agricultural and Horticultural Societies.

Exhibitions.—The *New York Horticultural Society* (see advertising pages) announce their fall exhibition on the 20th, 21st, and 22d of September—the same days, unfortunately, on which the N. Y. State Fair is held at Saratoga. The Society is making great efforts to get up a creditable show, and we trust will be successful. They say that their premium list is liberal, but on looking it over, we can see little worthy of being called liberal for a metropolitan show. Neither do we think the premiums well proportioned. The same premiums are awarded for Savoy cabbages, and cauliflower, and brocoli. $10 is offered for the best four hot-house plants in bloom, and only $5 for the best collection of coniferæ. For the best twelve roses, just the same as the best twelve verbenas, phloxes, or antirrhinums, and the same for the *two best pumpkins* as for *the best general display of vegetables.* The premiums on foreign grapes are somewhat liberal, amounting to between $50 and $60.

The *New York State Agricultural Society* holds its annual show at Saratoga, on the 20th, 21st, and 22d of September. The grounds and arrangements are said to be more complete and convenient than they have ever been before, and we have no doubt the show will be a good one.

The *New Haven (Conn.) Horticultural Society* will hold its 23d annual exhibition in New Haven on the 27th, 28th, and 29th. The doors open on the evening of the 27th at 7 o'clock, and at 9 o'clock, A. M., on the 28th and 29th. This Society holds weekly exhibitions every Saturday at the seed-store of J. I. Walter, 49 Chapel street.

The *Pittsburg (Penn.) Horticultural Society* holds its annual exhibition on the 6th, 7th, 8th, and 9th of September in Masonic Hall, 5th street. A "sweepstake premium of $20 will be given for the largest and best collection of fruits from any adjoining State, and $10 for the second best."

The *Delaware Horticultural Society* will hold its annual exhibition on the 14th and 15th September in the Odd Fellows' Hall, Wilmington. Competition open to all, and the Society offers to defray the cost of carriage on contributions from a distance.

The *Pennsylvania State Agricultural Society* holds its annual exhibition at Pittsburg on the 27th, 28th 29th, and 30th September.

The first annual fair of the *South-Western Agricultural and Mechanical Association* will be held at Louisville, Ky., on the 11th of October, continuing five days.

The *North-West Pomological Association* holds its next session at Chicago on the 4th, 5th, 6th, and 7th of October next, commencing at 10 o'clock, A. M., on the 4th. We should be there certainly, if it were not so late in the season.

The *Horticultural Society of the Valley of the Genesee* will hold its fall exhibition on the first day of October.

Pennsylvania Horticultural Society annual show at Philadelphia, and the *Massachusetts Horticultural Society* at Boston 21st, 22d, and 23d September.

The annual exhibition of the *Kentucky Horticultural Society* will be held in Louisville on the 28th and 29th of September. The following is a list of officers and committees for the year 1853.

President.—LAWRENCE YOUNG.

Vice Presidents.—Dr. W. C. Galt, Arthur Peter, J. F. Willey, Elias Dorsey, Jas. A. Miller, Geo. G. Hikes, Ben. H. Lawrence, Wm. Mix, C. C. Carey, Edward D. Hobbs, Ed. Wilson, John I. Jacob, W. C. Williams, Ormsby Gray, Henry Churchill, Philip Speed, Wm. E. Glover, Captain Sale, Isaac

Everett, E. Seabolt, Ormsby Hite, Warrick Miller, F. G. Edwards, A. M. D. Robertson, James Hewitt, Dr. J. A. Moore, Dr. Seaton, Wm. Short, S. R. Chenoweth, John F. Thatcher, John Herr, P. S. Birkenmayer, Mortimore Roberts, George Heinsohn, Thomas Y. Brent, T. W. Gibson.

Treasurer and Recording Secretary.—A. G. Munn.

Corresponding Secretaries.—W. D. Gallagher, Noble Butler.

Permanent Executive Committee.—Ormsby Hite, Arthur Peter, Robert Ross, Thomas S. Kennedy, Edwin Bryant.

Committee of Arrangements for the Annual Exhibition.—The Permanent Executive Committee, assisted by Henry Nanz, Martin Bopert, P. S. Birkenmayer, Edward Wilson, A. G. Munn, Geo. Heinsohn.

Judges at the Annual Exhibition—Of Fruits.—Edward D. Hobbs, Arthur Peter, J. P. Morton.

Of Flowers.—Dr. C. W. Short, Dr. Donhoff, Dr. Gross.

Of Vegetables.—Thomas Smith, Michael Kean, Dr. J. C. Johnston.

The second annual fair of the *La Porte (Ind.) Horticultural Society* will be held at La Porte on Thursday, Friday, and Saturday, September 22d, 23d, and 24th. The following is a list of the officers:

President.—Hon. C. W. CATHCART.

Vice President.—Wm. J. Walker.

Treasurer.—Col. W. A. Place.

Secretary.—John B. Fravel.

Township Directors.—Gen. Joseph Orr, Center; Jacob R. Hall, Scipio; S. S. Sabins, Noble; J. J. Mann, Clinton; Nimrod West, Cass; I. S. Jessup, North Durham; M. Hargan, Springfield; G. C. Havens, Pleasant; I. G. Sleight, Michigan; Daniel Low, Cold Spring; Jas. Catterlin, Galena; M. Ireland, Hudson; P. Ireland, Wills; A. Blackburn, Kankakee; H. P. Lanse, Union.

In addition to the above, State Fairs will be held as follows:

Vermont, Montpelier, September 13, 14, 15.

Kentucky, Lexington, September 13, 14, 15, 16, 17.

Ohio, Dayton, September 20, 21, 22, 23.

Michigan, Detroit, September 28, 29, 30.

Wisconsin, Watertown, October 4, 5, 6, 7.

New Hampshire, Manchester, October 5, 6, 7.

Maryland, October 25, 26, 27, 28.

Indiana, Lafayette, October 11, 12, 13, 14.

Virginia, Richmond, November 1, 2, 3.

Lower Canada Board of Agriculture, Annual Exhibition, Montreal, September 27, 28, 29, 30.

Upper Canada, Hamilton, October 4, 5, 6, 7.

Southern Central Agricultural Society, Augusta, Ga., October 17, 18, 19, 20.

Pennsylvania Horticultural Society.—Special Report of the Entomological Committee.—*August* 15, 1853.—The Committee on Entomology respectfully report: That their attention has recently been directed to several insects, of which specimens, in various stages of transformation, were received from members of the Society.

A species of *Coccus*, or Scale Insect, of the Apple tree; a noxious bark-louse, which injures the tree by sucking the juices from the branches to which it is permanently attached. They are of a brown color, about one-tenth of an inch in length, of an oblong oval form, and gregarious in their habits. Where they are crowded together in great numbers, on the limbs and branches, as is often the case, the growth of the tree is materially impaired, and its life endangered. Dr. T.

W. Harris, in his able "Report on the Insects of Massachusetts injurious to vegetation," recommends, as the best remedy for its destruction, "a wash made of two parts of soft soap and eight of water, with which is to be mixed lime enough to bring it to the consistence of thick white-wash." This application is to be put on with a brush, to the limbs affected, "in the early part of June, when the insects are young and tender." We have also used, with entire success, in the winter, the whale-oil-soap, applied with a hard brush.

Carpocapsa pomonella, or Apple Moth. This is the insect which disfigures so many of our apples, and causes such numbers of them to fall prematurely from the tree. Mr. Ewens, a member of our Society, in passing through his orchard, pulled up a sod of grass and laid it in the crotch of an apple tree; subsequently, he found it full of cocoons, which proved to belong to the insect in question. In this case, the apple worms, as is usual with them, had left the fruit, after they had attained their full larval growth, (some of them while it was on the tree, and others after it had fallen,) to take refuge in the crevices of the trunk; but finding a convenient shelter in the tuft of grass, they availed themselves of it. Dr. Harris has recommended old cloth to be used for this purpose; and it is evident that if these facts be taken advantage of when the infected apples begin to drop prematurely, the summer and autumnal broods may be materially diminished. It is of most importance to attend to the latter brood, which furnishes the individuals that live through the winter, and thus preserve the species for another year.

Aphis (*Pemphigus*) *stamineus*. This name is proposed for a large species of Aphis which forms follicles on the leaves of the silver-leaved Maple (*Acer eriocarpum*). The specimens were sent to us by our ex-President, Caleb Cope, Esq. This curious Aphis appears to be a new species. Dr. Fitch, in the descriptions of the New York State Cabinet, mentions the European *Aphis acres* as occurring in New York, and may have this woolly species in view; but the description of the foreign one does not mention the remarkable filaments which approximate the insect to certain tropical forms. Both sexes are covered with white down, and have a bunch of white filaments posteriorly, some of which are three-fourths of an inch long, a character in which this species surpasses the *Eriosoma* of the apple tree. *Male.*—Black, feet long, slender, and rufous; tarsi bi-articulate; wings slightly deflexed, translucent, pale ferruginous at the base; submarginal nervure conspicuous, black, and ending in a long stigma; disc with four simple nervures; posterior wings with three nervures; mesonotum polished, with a deep Y-shaped impression; abdomen without tubes; promuscis obsolete; antennæ 6—articulate, the first two short, the 3d long, and the 4th, 5th, 6th, gradually lengthening; length of the body 1½ lines, or to the end of the wings 2½. *Female and pupa.*—Apterous, dark reddish brown, feet paler; promuscis twice as long as the head, thickened near the apex; length 1½ lines.

Kentucky Horticultural Society.—Saturday, August 6th, was a proud day for the managers and friends of this Society. The display was by far the most imposing of the season, and in some of its features might have challenged a comparison with any similar display in Philadelphia, New York, or Boston. The show of peaches and plums was particularly fine in its appearance, and varied and profuse in quantity. The contributions from our friend L. Young, Esq., President of the Society, have been, as all our readers are aware, so uniformly creditable that we were not surprised to see in passing around the Societies tables his articles, clever as usual; but we confess we were surprised, and agreeably, too, on finding that so large a portion of the contributors of Saturday had been able to bring forward specimens which, in their kind, would compare favorably with those even of the President. We do not wish to seem inviduous by refering to a few where so many were deserving of notice. But we do not misinterpret the judgment of the very large and intelligent crowd of visitors when we designate as surpassingly beautiful, in their kind, the plate of pears contributed by Mr. George Herr, the plums by Capt. William Gibson, of Charlestown, Ind., and Mrs. Ford, of Jefferson county, and the peaches of Mr. Jacob Johnson,

Philip Speed, and E. D. Hobbs, Esq., all of Jefferson county. Although the whole stock of admiration of the large concourse of visitors seemed exhausted upon fruits, yet this state of things did not result from any falling off in the beauty or variety of floral contributions. Among the lady contributors we noticed fine boquets by Mrs. Peay and Mrs. Edmonia Ormsby, and we were glad to see in their proper places the standing contributions of Messrs. Wilson, Nantz, and Bopert.

The sale at 11 o'clock went off very satisfactorily to all concerned, and when we consider the large display the bidding was very spirited. We noticed that a plate of peaches, consisting of ten or twelve, grown by Philip Speed, Esq., was purchased by one of our wealthy citizens at $2.50, and that another grown by the President was purchased by the same gentleman at $3.75. We noticed also that three small plates of Hamilton Smith's imported plum, *Jaune Hative*, containing five fruits each, and grown by the President, went off respectively at $2, $2.25, and $2.50. By the way, the fruit committee have decided that this plum, besides being of the largest class, (some measuring in circumference 7 inches one way by 6½ the other,*) is of the finest flavor. There was, in our opinion, but one thing in the whole affair of Saturday which the managers of this Society can hope to alter for the better, and that was the comfort of the visitors. The Library Rooms, so generously granted to the Society without charge, are quite too small, and we are glad to learn that the executive committee have applied the only proper remedy, which was to procure more spacious and airy rooms, a task which they promptly performed in a few hours after the exhibition closed, and we are now authorized to say that the next exhibition and successive ones will be held at Mozart Hall, on the corner of Fourth and Jefferson streets.—*Louisville Journal.*

Horticultural Meeting at Toledo, Ohio.—At a meeting of the citizens of Toledo, convened July 2, 1853, in pursuance of a call published in the city papers, Matthew Johnson was called to the chair, and T. M. Cooley appointed Secretary.

On motion of J. W. Scott, it was resolved that the meeting proceed to organize a Society to be called the *"Toledo Horticultural Society."*

The following committee was appointed: Messrs. J. W. Scott, A. Smyth, and C. E. Perigo, to draft and support a Constitution and By-Laws for said Society.

Messrs. E. Bliss, C. W. Hill, and A. Allen, to report permanent officers.

Messrs. T. Dunlap, W. Baker, and F. J. Scott, to ascertain and report to the Society where and upon what terms a room for the meetings of the Society may be obtained.

On motion, the editors of the city papers were requested to urge upon the citizens of the place the importance of extending their aid to this organization.

Adjourned to Thursday, July 7, at 7 o'clock P. M., at the office of Hill, Perigo & Pratt.

T. M. Cooley, Secretary. M. JOHNSON, Chairman.

At a subsequent meeting a Society was formed, and the following officers elected:

President.—J. W. SCOTT.

Vice President.—E. Bliss.

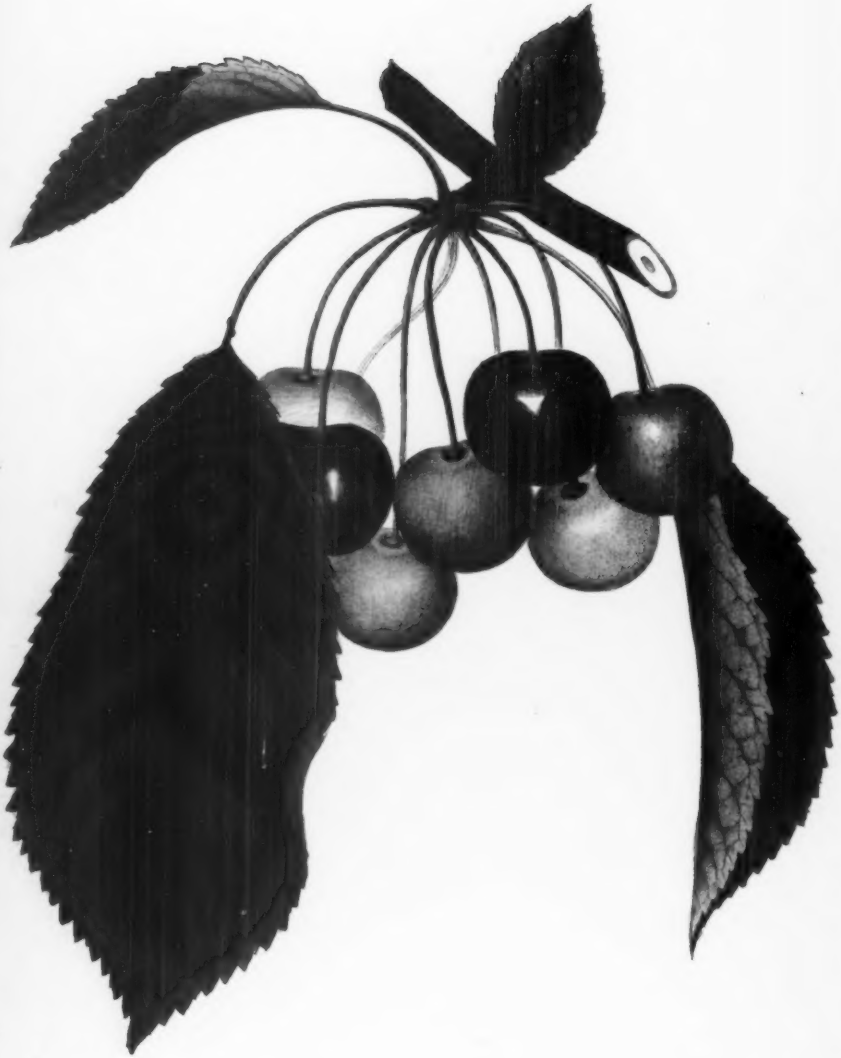
Secretary.—Chas. E. Perigo.

Treasurer.—T. Dunlap.

Executive Board.—M. Johnson, C. W. Hill, J. M. Whitney.

An Agricultural Society has been organized in Polk county, Iowa, for the promotion of Agriculture, Horticulture, Manufactures, Mechanics, and Household Arts. We hope to hear a good account of this young Society in the "far West."

*Too large for *Jaune Hative*.—Ed.



GOVERNOR WOOD.